DOMINIONS ROYAL COMMISSION.

ROYAL COMMISSION ON THE NATURAL RESOURCES, TRADE, AND LEGISLATION OF CERTAIN PORTIONS OF HIS MAJESTY'S DOMINIONS.

MINUTES OF EVIDENCE TAKEN IN THE UNION OF SOUTH AFRICA IN 1914.

PART I.

(PART II. is printed as [Cd. 7707].)

(*For previous publications relating to the work of the Commission, see p.* ii.)

Presented to both Houses of Parliament by Command of His Majesty.
December 1914.

LONDON:
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T. FISHER UNWIN, LONDON, W.C.

1914.

[Cd. 7706.] *Price Three Shillings.*

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V. [illegible] and Mining Conditions.

VI. Trade :—

(*a*) Exhibitions.

(*b*) Statistics, Weights and Measures.

(*c*) General Trade Questions.

VII. Legislation.

* Appendices are printed at the end of the section to which they relate.

Previous publications relating to the work of the Commission have been issued as follows :—

Minutes of Evidence :—

London, 1912, *Migration* [Cd. 6516].

Do. *Natural Resources, Trade, and Legislation* [Cd. 6517].

New Zealand. 1913 [Cd. 7170].

Australia, 1913, *Part I.* [Cd. 7171].

Do. *Part II.* [Cd. 7172].

London, 1913 [Cd. 7173].

Do. *January* 1914 [Cd. 7351].

Reports :—

First Interim Report [Cd. 6515].

Second Interim Report [Cd. 7210].

Third Interim Report [Cd. 7505].

PRELIMINARY NOTE.

The Commissioners present in the Union of South Africa were :—

Sir EDGAR VINCENT (*Chairman*),
Sir ALFRED BATEMAN, K.C.M.G.,
Sir HENRY RIDER HAGGARD,
TOM GARNETT, Esq.,
WILLIAM LORIMER, Esq., LL.D.,
JOSEPH TATLOW, Esq.,
} representing the United Kingdom.

DONALD CAMPBELL, Esq., LL.B., representing Australia.
JOHN ROBERT SINCLAIR, Esq., ,, New Zealand.
Sir JAN WILLEM STUCKERIS LANGERMAN, representing the Union of South Africa.
The Hon. EDGAR RENNIE BOWRING, representing Newfoundland.

Evidence was taken by the Commission—

At the Provincial Council Chamber, Cape Town, on February 25th, 26th, 27th, March 2nd, 3rd, 4th, 5th, and 6th.
At the Chamber of Commerce, Oudtshoorn (Cape Province), on March 11th.
At the Town Hall, Port Elizabeth (Cape Province), on March 13th.
At the Town Hall, East London (Cape Province), on March 16th.
At the Town Hall, Kimberley (Cape Province), on March 18th and 19th.
At the Raad Zaal, Bloemfontein (Orange Free State), on March 20th and 21st.
At the City Hall, Durban (Natal), on March 23rd, 24th, and 25th.
At the Provincial Council Buildings, Pietermaritzburg (Natal), on March 27th, and on March 28th at Nel's Rust Farm, near Pietermaritzburg.
At the Provincial Council Buildings, Pretoria (Transvaal), on March 30th, 31st, and April 1st.
At the New Law Courts, Johannesburg (Transvaal), on April 2nd, 3rd, 4th and 6th.

Evidence was also taken by Committees of the Commission at Newcastle (Natal) on March 23rd, and at Johannesburg on April 2nd, 3rd, and 4th.

The evidence has not been printed in chronological order, as it dealt with a large variety of subjects, but is presented under the following main heads :—

I. Migration, Land Settlement, and Irrigation.
II. Communications.
III. Empire Development.
IV. Natural Resources.
V. Mining and Mining Conditions.
VI. Trade.
VII. Legislation.

In several cases individual witnesses dealt with different subjects under one or more of these heads. In such cases the evidence has either been divided, or, where that course was impossible, printed under the subject to which the greatest attention was devoted.

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LIST OF WITNESSES.

(*Note.*—In the following list the * indicates that the evidence of the witness is printed in Part II., and the † that the witness has given evidence on other subjects, also printed in Part II. [Cd. 7707].)

Day.	Date on which Evidence was taken.	Name.	Page.
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	Cape of Good Hope. (Cape Town.)		
Eighty-fifth -	Wednesday, 25th Feb. -	Mr. Herbert Warington Smyth, M.A.,* Secretary for Mines and Industries for the Union of South Africa.	
		Dr. Alex. L. du Toit,* Geological Surveyor, Cape Province.	
		Mr. Jeremiah Wilson, Postmaster-General, Union of South Africa - - - - - - -	54–9
		Mr. Charles E. Legat, Chief Conservator of Forests, Union of South Africa - - - - - -	286–9
Eighty-sixth -	Thursday, 26th Feb. -	Mr. Harry Ernest Victor Pickstone, Fruit Grower -	308–15
		Mr. Ralph Bulmer, Government Fruit Inspector -	315
		Mr. Alfred Joseph Smith Lewis,* Principal of Customs Statistical and Audit Branch, Cape Town.	
		Mr. Laurence Woodhead, Cotton Grower -	274, 315–17.
		Mr. G. T. Nicholson, Resident Engineer, Table Bay Harbour - - - - - - - - -	92–4
Eighty-seventh	Friday, 27th Feb. -	Mr. Hyman Liberman, of Messrs. Liberman and Buirski, Produce Merchants - - - -	162–6
		Mr. P. G. van Breda, of Messrs. Van der Byl & Co., Produce Merchants - - - - - - -	166–8
		Mr. Alfred H. Oxenham, Wool Expert, of Messrs. Ebel & Co., Ltd., Wool Merchants - - -	168–70
		Mr. John McDonald, representing Messrs. H. Collison & Co., Wine Merchants - - - -	301–4
		Mr. Francis Edgar Kanthack, A.M.Inst.C.E., Director of Irrigation for the Union of South Africa -	1–6
Eighty-eighth -	Monday, 2nd March -	Sir Reginald Sothern Holland,* H.M. Trade Commissioner in South Africa.	
		Professor H. H. W. Pearson, M.A., Sc.D., South African College, and Honorary Director of the National Botanic Gardens, Kirstenbosch - -	170–3
		Mr. Advocate Louis Edmund Benjamin, K.C., LL.B.† - - - - - - - - -	87–8
		Mr. Henry T. L. Leefe, Assistant Manager at Cape Town of the Union-Castle Mail Steamship Company - - - - - - - - -	59, 94–7
Eighty-ninth -	Tuesday, 3rd March -	Mr. F. Cook, Managing Director of Messrs. F. Cook Co., Ltd. - - - - - - - - -	97–103
		Mr. Alwyn Ignatius Vintcent, J.P., M.L.A., representing the Mossel Bay Chamber of Commerce -	59–60, 174–6.
		Mr. Kenneth Bingham Quinan,* General Manager of the Cape Explosives Works, Ltd.	
		Mr. John William Jagger, M.L.A.,† Wholesale Merchant, President of the Cape Town Chamber of Commerce - - - - - - - - -	6–8, 60–64, 102–3, 160, 317.
Ninetieth -	Wednesday, 4th March	The Hon. Sir Thomas William Smartt, K.C.M.G., M.L.A. - - - - - - - - -	8, 64–70 103–4, 318.
		Senator the Hon. Sir J. H. Meiring Beck, M.D. -	304–7
		Mr. Ludwig Wiener - - - - - -	70–4, 104–5.
		Mr. K. Spilhaus, of Messrs. W. Spilhaus & Co.	74, 88, 105–6.

Day.	Date on which Evidence was taken.	Name.	Page.
	1914.		
	Cape of Good Hope. (Cape Town)—*cont.*		
Ninety-first -	Thursday, 5th March -	Mr. W. J. Egan,* Canadian Government Trade Commissioner.	
		Mr. Frank Braybrooke Smith, Secretary, Department of Agriculture for the Union of South Africa - - - - - - - - - -	9–10, 176–183, 274–5, 318
		Mr. J. Solomon,* representative of the British Manufacturers' Representatives Association of South Africa, Incorporated.	
		Senator the Hon. Marshall Campbell - - -	75, 183–4, 289
		Mr. W. J. Laite,* General Secretary to the South African Manufacturers' Association.	
Ninety-second -	Friday, 6th March -	Mr. J. M. Stephen, Managing Director, South African Milling Company - - - - - -	184–8
		Mr. George Robert Hughes, Secretary for Lands, Union of South Africa - - - - - -	10–19
		Senator Col. the Hon. John Joseph Byron, C.M.G.	19–20
		Mr. William Wilson Hoy, General Manager of Railways and Harbours, Union of South Africa -	75, 107–118
	(Oudtshoorn.)		
	Tuesday, 10th March -	Mr. John Leroux, Ostrich Farmer - - - - -	189
Ninety-third -	Wednesday, 11th March	Mr. E. T. L. Edmeades, representing the Oudtshoorn Farmers' and Fruit Growers' Association - -	189–98
		Mr. A. E. Martin, representing the Oudtshoorn Chamber of Commerce - - - - - -	198
		Mr. R. F. Chambers, representing the Town Council of Oudtshoorn - - - - - - - - -	198–9
		Mr. Karl Schenck, representing the Town Council of Oudtshoorn, and formerly Government Tobacco Expert - - - - - - - - - -	200
	(Port Elizabeth.)		
Ninety-fourth -	Friday, 13th March -	Mr. Charles Huskisson Mackay, President, Port Elizabeth Agricultural Society - - - - -	20–4
		Mr. Oscar Evans, Farmer and member of Land Board - - - - - - - - - -	24–5, 200–3
		Mr. Fred H. Holland, member of the Ostrich Farmers' Association of Middelburg - - -	25–6, 203–7
		Mr. William Edwin Clift, Port Captain and Marine Superintendent, and	
		Mr. G. Holford Walker, Harbour Engineer, Port Elizabeth - - - - - - - - -	118–20
	(East London.)		
Ninety-fifth -	Monday, 16th March -	Mr. N. F. Howe Browne, B.A., Cotton Grower -	275–9
		Mr. Carl Heinrick Bock, Jr., Wool Buyer - -	75, 207–8
		Mr. H. A. Lerchen, of Messrs. H. Knorr & Co., Steamship Agents - - - - - - -	121–2
		Mr. R. H. F. Dumaresq, representing Messrs. W. Cooper and Nephews, Dip manufacturers -	208–9
		Major-General Sir Edward Yewd Brabant, K.C.B., C.M.G. - - - - - - - - - -	26–8, 209–10, 279
		Mr. J. W. Sowarsby, Divisional Superintendent, and Captain M. G. Grogan, Port Captain, East London Harbour - - - - - - -	122–5

Day.	Date on which Evidence was taken.	Name.	Page.
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	Cape of Good Hope. (Kimberley.)		
Ninety-sixth -	Wednesday, March 18th	Mr. John Orr,† Deputy Mayor of Kimberley, and member of the Kimberley Chamber of Commerce	75–6
		Mr. Arnold Wilson Wall, Manager of Messrs. Stewarts & Lloyds (South Africa, Ltd.) -	28–30, 88–91
		Mr. W. H. Carter - - - - - - -	30–32
		Mr. A. R. Radloff, Jr. - - - - - -	32–33, 210–212
Ninety-seventh	Thursday, March 19th -	Mr. Irvine Rowell Grimmer,* Assistant General Manager of De Beers Consolidated Mines, Ltd.	
	Orange Free State. (Bloemfontein.)		
Ninety-eighth -	Friday, March 20th -	Mr. Arthur Emmanuel Fichardt, President of the Bloemfontein Chamber of Commerce - -	290–1, 318
		Mr. W. Ehrlich, J.P.,† Vice-President of Bloemfontein Chamber of Commerce - - - -	125
		Mr. G. Smetham, Secretary, Bloemfontein Chamber of Commerce - - - - - - -	77–8
		Mr. F. Griffith, Municipal Forester, Bloemfontein -	292–3
		Mr. Gustav Baumann, Government Land Surveyor -	33–5
		Mr. S. E. Gasson - - - - - - - -	212–15
Ninety-ninth -	Saturday, March 21st -	Mr. C. McG. Johnston, Secretary to the South African Agricultural Union - - - -	215–221, 293
		Mr. G. E. B. Frood, M.A., M.I.M.M.,* Inspector of Mines in the Orange Free State.	
	Natal. (Durban.)		
One hundredth	Monday, March 23rd -	Mr. Maurice Smethurst Evans, C.M.G.† - -	36–41
		Mr. Alexander Buchanan,† Chairman, and Mr. Walter Butcher,† Vice-Chairman, Durban Chamber of Commerce - - - - - -	78–80
		Mr. J. T. Williams,† Managing Director of the Natal Navigation Collieries and Estate Co., Ltd. -	125–130
		Mr. Otto Siedle, Chairman of the Natal Coal Owners' Society - - - - - - - - -	130–1
	(Newcastle.)		
	Monday, March 23rd - (Before a Committee of the Commission.)	Mr. Lewis H. S. Jones, Managing Director, Newcastle Creamery Company - - - - -	265–7
		Mr. James Malcolm,* Mine Manager.	
		Mr. J. Logan,* Under Manager of the Fairleigh Colliery.	
		Mr. William Bekenn,† Manager of the Fairleigh Colliery - - - - - - - - -	146
	(Durban.)		
One hundred and first.	Tuesday, March 24th -	Mr. E. Anderson,* Chairman of the Natal Manufacturers' Association, and Mr. Joseph St. G. Reynolds-Tait,† representing the Natal Tea Planters' Association - - -	222–4
		Mr. D. Fowler, Vice-President Natal Sugar Association, and Mr. Edward George Arthur Saunders, J.P., Managing Director, South African Sugar Refineries, Ltd. - - - - - - -	224–8
		Mr. H. Shadwell, Harbour Engineer, Captain J. C. Young, Port Captain, and Mr. B. H. Wisely, Chairman of the Port Advisory Board, Durban Harbour - - - - - -	131–4
One hundred and second.	Wednesday, 25th March	Mr. Alexander Harvey Rennie, Shipowner and Shipping Agent - - - - - - - -	80, 135–7
		Mr. W. B. Wilson, Government Officer in the Tobacco Division of the Union Department of Agriculture - - - - - - - -	228–32
		Mr. C. D. Keith Fraser, Wattle Grower - -	294–7
		Captain H. Noyes - - - - - - - -	232–5
		Mr. Julius L. Wides, Tobacco Manufacturer - -	235–8
		Mr. Jacob J. Egeland, Managing Director of the Union Whaling Company, and Mr. F. Bearpark -	322–9
		Mr. H. G. Mackeurtan,* of Messrs. Shepstone and Wylie, Associates and Solicitors.	

Day.	Date on which Evidence was taken.	Name.	Page.
	1914.		
	NATAL. (Pietermaritzburg.)		
One hundred and third.	Friday, 27th March -	Mr. P. H. Taylor, M.P.C.,* Mayor of Pietermaritzburg, and Mr. W. J. O'Brien,* Councillor.	
		Mr. David Forbes Forsyth, B.A.,† Chairman, and Mr. Robert Dunlop,† Secretary, Pietermaritzburg Chamber of Commerce - - - - - -	80–1
		Mr. John Thomas Andas,* Head of the Administrative Branch of the Mines Department, Natal, and Mr. F. A. Steart,* Inspector of Mines.	
		Mr. Frederick Threlkeld Angus, Senr., Vice-President of the Co-operative Agricultural Union, and Mr. W. N. Angus, Jr. - - - - - -	297–301
		Mr. J. Marwick, Vice-President, Mr. S. B. Woollatt, the Rev. James Scott, members of the Executive Committee, and Mr. Duncan MacIntyre Eadie, Secretary, Natal Agricultural Union - - -	41–4, 238–41
	(Nel's Rust Farm) Near Pietermaritzburg.		
One hundred and fourth.	Saturday, 28th March -	Senator the Hon. Joseph Baynes, C.M.G., Farmer	44–5, 241–6
	TRANSVAAL. (Pretoria.)		
One hundred and fifth.	Monday, 30th March -	Mr. H. R. Abercrombie, Member of the Pretoria Chamber of Commerce - - - - - -	137–40
		Mr. Edmund Francis Bourke,† President of the Pretoria Chamber of Commerce - - - -	246–9, 319
		Mr. Izaak Jacob Haarhoff, J.P.† - - - -	45–6, 249, 301, 319
		Mr. John Bruce Moffat,† Director of Census, and formerly Secretary of the Economic Commission - - - - - - - - - -	249–50
One hundred and sixth.	Tuesday, 31st March -	Mr. Percival Ross Frames,* Managing Director, Premier Diamond Mining Company.	
		Mr. Charles Elias Gray, M.R.C.V.S., Principal Veterinary Surgeon, Department of Agriculture, Union of South Africa - - - - - -	250–4
		Mr. W. H. Scherffius, Chief of the Tobacco and Cotton Division of the Department of Agriculture, Union of South Africa - - - - -	279–83
One hundred and seventh.	Wednesday, 1st April -	Mr. Alfred George Robertson, Mr. W. A. Pilkington, Mr. F. R. N. Findlay, Major R. D. Doyle, D.S.O., Mr. J. L. Van Heerden, and Mr. T. Kleinenberg, representing the Transvaal Agricultural Union -	254–65
	(Johannesburg.)		
One hundred and eighth.	Thursday, 2nd April -	Mr. Robert Nelson Kotze, B.A.,* Government Mining Engineer.	
		Mr. C. W. Villiers, Mr. B. G. Lloyd, and Mr. Henry Melville Taberer, J.P., representing the Native Recruiting Corporation, Ltd. and the Witwatersrand Native Labour Association, Ltd.*	
		Mr. Hans Neuhaus,* Mr. Edward John Way,* M.Inst.C.E., M.Inst.M.E., and Mr. William Gemmill,* representing the Transvaal Chamber of Mines.	
	Thursday, 2nd April - (Before a Committee of the Commission.)	Dr. William MacDonald, editor of the *Union Agricultural Journal* - - - - - -	47–9, 267–9
		Mr. J. Van Zijl - - - - - - - - -	271
One hundred and ninth.	Friday, 3rd April -	Mr. Howard Wallace Soutter,† Mr. Alfred Falkland Robinson,† and Mr. Ernest Chappell, J.P.,† representing the Johannesburg Chamber of Commerce - - - - - - - - - -	46–7, 81–2, 91, 140–5, 161
		Mr. R. Shanks,* Inspector of White Labour.	

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	TRANSVAAL. (Johannesburg)—*cont.*		
One hundred and ninth.	Friday, 3rd April -	Mr. Thomas Matthews,* General Secretary of the South Africa Miners' Union. Mr. Wilfrid Wybergh.*	
	(Before a Committee of the Commission.)	Mr. Reginald R. Smith, Cotton Expert - - -	283–5
		Mr. William Palmer, Lands Department, Messrs. Lewis and Marks - - - - - - -	49–50
		Mr. Charles Albert Madge, Land Manager of the Transvaal Consolidated Land and Exploration Company, Limited - - - - - - -	50–52
One hundred and tenth.	Saturday, 11th April -	Mr. Norman Anstey, Mayor of Johannesburg -	82–3
		Mr. Howard Pim, B.A.,* Chartered Accountant.	
	(Before a Committee of the Commission.)	Mr. C. F. Stallard, K.C.,* Mr. R. W. Msimang,* and Mr. C. S. Mabass.*	
One hundred and eleventh.	Monday, 6th April -	Mr. Raymond William Schumacher,* Chairman of the Rand Mines, Limited. Mr. S. A. M. Pritchard,* Director of Native Labour. Mr. G. Nathan,* representing the General Mining and Finance Corporation.	

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MINUTES OF EVIDENCE

TAKEN BEFORE THE

DOMINIONS ROYAL COMMISSION

IN THE UNION OF SOUTH AFRICA IN 1914.

PART I.

I.—MIGRATION, LAND SETTLEMENT, AND IRRIGATION.

CAPE OF GOOD HOPE.

Cape Town, Friday, 27th February 1914.

Mr. Francis Edgar Kanthack, A.M.Inst.C.E., Director of Irrigation for the Union of South Africa, called and examined.

1. **(Chairman.)** I understand you are Director of Irrigation for the Union of South Africa?—Yes.

2. Your sphere is the whole territory of the Union?—Yes.

3. Would you, then, please make a statement as to irrigation?—Yes. The general policy of the Government as regards irrigation is not so much to undertake large State schemes, but rather to foster private enterprise and co-operative enterprise. At the present time it must be realised that our policy is the best, considering the conditions here. We have a very small population in relation to the size of the country, and market conditions are abnormal. We have no home market at all, and it takes very little to glut such market as we have. Unless produce is produced which can be exported, the people cannot get rid of it. At present I think there can be no question that this country, as a whole, must be considered mainly as a pastoral one, and its future, I think, largely lies in that direction, so that irrigation is to a very large extent an adjunct to stock farming, and in that sense we are only at the fringe of our development. Vast areas of the country are being stocked, at present, on the basis of a condition of drought. Large areas will only carry one sheep to about ten acres, whereas with a very little extension of irrigation on the farms by means of small dams or boreholes it is possible to grow fodder, lucerne, or winter feed, and immediately double the stock-carrying capacity of the farms. Then, again, it must be remembered that, owing to the peculiar geological conditions, we have comparatively little soil in the country which is alluvial. Most of the country is composed of very ancient formations—thin soil with narrow ribbons of intensely rich alluvial valleys; but they form a very small proportion of the entire area of the country. Naturally, all these valleys have attracted the best people, and they will always form areas on which closer settlement can be encouraged. Then, again, it must also be remembered that, unfortunately, the greater part of South Africa was practically partitioned among a comparatively few white people in days gone by, and the only land which is left in the hands of the Government is either unhealthy country or desert like the Kalahari, Bushman Land, and parts like that, where from an irrigation point of view nothing could be done. There is no water to irrigate with, and as far as development of underground supplies is concerned, experiments so far made go to show that it is both precarious and sometimes bad in quality.

4. **(Sir Rider Haggard.)** Brackish, like Australia?—It varies greatly. It varies from district to district, but there are some parts of the country where the underground water is very bad, suitable for neither man nor beast.

5. Does it kill vegetation?—Yes; vegetation is, of course, more sensitive than animal life. As far as irrigation is concerned we are, therefore, generally confined to these comparatively small parts in the alluvial valleys, the whole of which land is already parcelled out, and to purchase that land is a very costly matter. The land which is capable of being put under irrigation where there are any possibilities at all, mostly in the Cape Province, is now selling at from 5*l.* to 10*l.* a morgen—this is an all-round price for a farm, and includes veld as well as arable land—and then it must be remembered that it will generally take anything from 20*l.* to 50*l.* a morgen to place it under irrigation. People do not like spending money on unimproved land which will require a very large amount of capital to develop. The Cape Province, I may mention, is much ahead of the other Provinces as regards irrigation. To begin with, the country is more arid, and, in many cases, in order to make a living at all, the people have been forced to irrigate, and it has made them generally more enterprising. The result has been that, although the early efforts in co-operation and irrigation were slow, and one had a lot of disappointment to meet, the position at present in the Cape is that in practically every district where it is possible to use water for irrigation the people are now only too eager to combine and avail themselves of its benefits, and to make use of our legislation to carry out these schemes. The great point about co-operative enterprise is that this comparatively small number of people who come under the scheme are financially fully liable for the cost. They can get nothing from the Government by political pressure, and the result is that every co-operative scheme that has been started in this country so far has been an unqualified success. They are all doing well. Every man has to work hard, and they are doing it; whereas every State scheme that has been launched in the past has been a comparative failure. They have been exploited politically, they have had the wrong kind of people, and without exception they are non-paying propositions, and a comparatively poor class of people is living on them. Under the co-operative scheme the country is surveyed by the Irrigation Department. We discover the

schemes and work them up, and the projects are laid before the people interested. These people, in course of time, form themselves into an irrigation district, and they elect their own board. This board, under the Irrigation Act, has the privilege of borrowing money, generally from the Government, but also from outside sources, if they so desire it, at a very cheap rate of interest on the security of the irrigation rates which these boards are empowered to levy.

6. What rate of interest?—They only pay 3¾ per cent. on the money. It is borrowed under a sinking fund system, the period of which rarely exceeds 40 years. The ordinary maximum period is 30 years, and the average rate which these people have to pay for interest and redemption is generally in the neighbourhood of 5 per cent., that is, 3¾ per cent. interest on the borrowed money, and the balance redeems the loan in 30 years. Apart from these co-operative schemes we are also doing all we can to assist private individuals in schemes of their own, and likewise lending them money on mortgage at the same rate of interest, 3¾ plus redemption, on periods of anything up to 30 years; and these loans are taken full advantage of. On the whole we have at the present moment approximately one million of money outstanding, and we have only had one defaulter, to the extent of about 150*l*., which I think is highly satisfactory.

Besides the Government reconnaissance surveys, we have a well-organised hydrographic survey. The department also assists any private farmer or irrigation board which may require our services or professional advice on any scheme, and this work is done at very low fees. The Government only charge them 1*l*. a day, and these benefits are taken very full advantage of. Farmers have learned that it is better for them to use the department in connection with their irrigation works than go on haphazard as before; and although we have been much criticised for interfering with private enterprise, it is not really a sphere in which the private practitioner can do much good. The ordinary private practitioner cannot afford to run about the country attending to these little jobs except at fees that no farmer would be prepared to pay. He would rather muddle along and do without the engineer altogether. As a matter of fact, the activity of the Irrigation Department has probably done more to create work for private engineers than anything else, because, although we advise on schemes, we do not construct them for private individuals or irrigation boards. They must, therefore, turn to the private engineers for their assistance in this direction, though the work may be constructed under the supervision of the Government. Apart from these works, the Government do not, of course, leave out the State scheme altogether. In certain instances the Government is practically forced to construct large works on their own account. But, so far, we have kept such schemes within comparatively small dimensions in order to form a number of nuclei in different parts of the country, which will act as centres from which irrigation will spread. At the same time, we have now embarked upon a new era since Union, and a number of very much more ambitious schemes are under consideration, which, in the days of separate Colonial Governments, were practically impossible. Quite a number of what, for this country, must be considered very large schemes will be undertaken within the next few years.

Now, apart from irrigation in its ordinary sense, the Government carries out a very large amount of boring for underground water, and there are two separate spheres of that work. In the first place, it has now been accepted more or less as a hard and fast policy that no arid and waterless land shall be given out for settlement on which water has not been found by boring, and after having found water these areas are cut up into suitable farms and given out under the Land Settlement Act. On this work we are at the present time spending approximately 50,000*l*. to 60,000*l*. a year. Apart from that, we are also spending an equally large amount on hiring drills to private individuals in certain parts of the country at rates which amount to 4*l*. a day per drill for boring for water on private land. We have at present something like 80 drills in the field—large drills of the heaviest size—and the equipment generally is probably the most modern in existence, and the work has undoubtedly done an enormous lot of development in these dry tracts. In the Cape Province, where the geological formation is comparatively simple and the rock is soft, it is an easy process and water is easily found. But as one proceeds north into the older formations, drilling becomes a more difficult and costly matter, and on the whole our average cost for the Transvaal and Bechuanaland and Kenhardt works out at about 11*s*. a foot. In the soft Karoo strata drilling does not cost more than about 4*s*. or 5*s*. a foot. That is including casing, where necessary, but the farmers hiring the drill provide fuel and water.

7. What inch pipe?—All our holes are drilled 6½ inches diameter.

8. **(Sir Alfred Bateman.)** That is cheap, is it not?—Yes.

9. In London it costs about 1*l*. a foot?—Well, even our very hardest formations in Bushman Land do not cost 1*l*. a foot. I do not know whether the Commission wishes to know what the functions of the department are.

10. **(Chairman.)** No, that does not concern us.—Well, I think that gives a bird's-eye view of the position.

11. **(Mr. Sinclair.)** Does the existing system of irrigation deal with the arid and poor land as well as the rich fringes of which you have spoken?—Yes, where possible, but it is generally only possible to irrigate these rich fringes, because they are the only places where we have the necessary combination of soil and water.

12. I wanted to get from you what is expected from the irrigation systems? You are going to irrigate the rich fringes; is it possible to do anything with the inferior lands that surround them?—Only as grazing.

13. I am not speaking merely of the physical possibility, but what would be the economic possibilities? Can results be looked for?—Only from a grazing point of view, speaking generally. There are cases in the north Free State and the Transvaal where the land away from the rivers, though naturally poorer than the alluvial soil, is still able to give a good return if placed under irrigation. But, generally speaking, in the Karroo system, which covers about 50 per cent. of the Union, the soil is very very thin and does not justify the cost of irrigation works.

14. Can you give us an idea of the proportions of land that can be treated by irrigation?—I do not think we have enough information to give a definite percentage, but I should say roughly, from what I know of the country, that it would not be more than 5 per cent. of the entire area.

15. And you told us that you regarded the country as mainly a pastoral country?—Yes.

16. Are you speaking of the whole Union?—Yes. Of course, country like the Western Province is naturally excluded, but these comparatively rich areas form, after all, a very small proportion of the whole. If you take the entire plateau, it is essentially a pastoral country, and its future lies, I think, in scientific stock-farming.

17. What I was trying to lead up to was this—to find out to what extent irrigation will encourage small agricultural farming in the Union?—Well, irrigation is essential to small stock-farming over the greater portion of the Union, because otherwise it is impossible for any individual to live on a small piece of land at all.

18. Are there still, to any considerable extent, areas of land available for small farming that can be dealt with by irrigation?—Is it Crown land that you are speaking of?

19. Unsold State land.—Well, of Crown land there is very little which is suitable for that class of settlement.

20. Does not it follow, then, that there is not now available in the hands of the Crown areas of land suitable for small farming in the Union?—No, generally speaking, there is very little of it.

21. That is to say, the land suitable for farming, large or small, is in the hands of private individuals?—Yes.

22. And they are the persons who will benefit by systems of irrigation?—Yes.

23. So that if the areas that so benefit are cut up into smaller areas for incoming farmers, the incoming farmer will have to pay to the present holder the increased price?—That is so.

24. Does not it follow from that, then, that there is no available land moderately priced for the incoming small farmer?—Suitable for irrigating, I take it?

25. Suitable for agricultural working, which you tell us cannot be carried on without irrigation?—I should say, broadly speaking, there is no land in the hands of the Crown which is suitable for the small holder—for incoming settlers.

26. It follows from that, does it not, that if the existing farms are cut up into smaller areas the buyers will have to pay a substantial price for it?—Yes.

27. You told us that no lands are sold by the Crown without first experimenting by boring has been carried out?—Yes, that is the waterless tracts.

28. What is the class of land to which you now refer when you tell us that?—It includes some of the best grazing land we have in the Union.

29. You are speaking, then, of grazing land?—Yes.

30. And in such areas where boring has shown that there is water, what extent of land would be required for a settler before he could make it pay for pastoral purposes?—Well, it varies enormously according to situation. In the Northern Transvaal they have come down to farms as small as 600 to 800 acres, whereas in Bechuanaland they run to many thousands of acres.

31. Would that be used for sheep-farming?—Well, generally on these areas the sheep come in later on. Most of this country in the Northern Transvaal and Bechuanaland is not suitable for sheep at first, it requires to be "tamed" so to speak, the grass is too rank. Later on, when it has been heavily stocked with cattle, sheep will do all right.

32. And the areas you mention—say 800 acres?—That is the smallest in the Transvaal. In Bechuanaland it would be about 6,000 acres for a standard size of farm. And if we went further west still—we have just been opening portions of the Kalahari, for instance, where it would be impossible to satisfy a man with a farm of less than 20,000 acres.

33. You have given us the extremes?—Yes.

34. Can you give us an idea of the capital required by an incoming farmer to deal with 800 acres, say, in the Transvaal?—I think that is a question you had better put to the Secretary for Lands.

35. You prefer not to express any opinion as to the capital required in the other cases you gave us?—Well, I could only really speak from first-hand knowledge of the more highly developed irrigated portions of the Union; for instance, in the Cape Midlands.

36. Can you give us any assistance as to the amount of capital required by the incoming farmer to deal with the pastoral lands?—Well, I would rather not. It would be guesswork.

37. Then what in your opinion is the direction in which the settlement of land can, with best prospects of profit, be carried out within the Union?—Through the breaking up of the large holdings in the irrigable areas. I will give you an example. Take the Great Fish River in the Cape Midlands. We have now got formed, or at the point of being formed, a long series of irrigation districts which will bring under irrigation approximately 70,000 acres of the very richest land we have in the country. The whole of that area is held by a comparatively few men. There are a number of districts where there are rateable areas of about 800 to 1,000 acres in a single holding, and the average holding in every case is about 500 or 600 acres of irrigated land. Now, that is a great deal more than these people can manage.

38. You are now speaking of agricultural land?—Yes. Now, throughout those areas many of these owners are face to face with the alternative of having to find settlers or purchasers for the greater portion of their holdings, or to get into serious financial difficulties. They have ten times more land under these schemes than they can possibly develop themselves.

39. But I suppose they want substantial prices for their land?—No, from what I have seen, in most cases they are quite ready to sell at a price which is perfectly reasonable as a commercial investment.

40. What do you regard as the value of such lands?—The value of that class of land, I should say, is from 5*l.* to 10*l.* a morgen. That is 2*l.* 10*s.* an acre for both arable and grazing land.

41. That is for the land itself?—Yes.

42. And you think there are large areas of land at present in private hands which will be available for similar smaller settlement at about those prices?—Yes, and are changing hands at the present moment for that purpose.

43. Are they getting into the hands of new settlers, or into the hands of people who are already in the country?—I should say practically all getting into the hands of people in the country.

44. Is the demand for such land on the part of those already in the country, having regard to the areas available, sufficient to absorb all that is available? Well, I do not think that has been proved at all. The people that are taking up land of this kind are largely composed of men from the Transvaal, coming down from the mining centres like Johannesburg, or from the towns, men like retired Civil Servants and others who are trying to get on to the land, but they are not, generally speaking, drawn from the agricultural section of the population.

45. Then do you think that you have of your own people—I do not care in what occupation they may be at present engaged—in your own people, sufficient to take up any land that will be available?—At the present moment, yes.

46. In other words, what I want to get at is what room is there for outside settlement? I mean for people coming into the country?—There is room for the immigrant if he is capable, has capital, and has a certain amount of experience. There is undoubtedly room.

47. Then you think those who are here are not sufficient in number to absorb the whole of the available areas?—No, I do not think so.

48. Although you do not care to express any opinion as to the capital required in the case of pastoral lands, it is obvious, is it not, that the system will require that all those undertaking to break up pastoral lands will need to have substantial capital?—Yes, certainly.

49. Is there anything else that you can tell us which will throw light on the question I am trying to pursue—the availability of land for pastoral or agricultural use by small holders from outside?—Provided they are of the right class and have agricultural experience, people of that class could probably get land immediately.

50. But there is no room for the man without either experience or capital?—Quite so.

51. **(Sir Rider Haggard.)** With regard to this irrigation—how is it done—by dams, chiefly?—Far and away the greater part is done by what is known as flood irrigation—that is to say, when the rivers come down in flood two or three or more times a year. The works are constructed and laid out in such a way as to distribute the flood water over the entire land by means of furrows.

52. Not by holding up water and turning it on?—No. Unfortunately, we are worse off in this country for good storage sites than almost any other country in the world.

53. You mean an area over which, when the stream is flooded, you can shoot water and let it sink away perhaps once, twice or more times a year?—Yes.

54. On such lands what do they chiefly grow—lucerne?—Yes, that is the staple crop under irrigation in this country.

55. Will a couple of irrigations or waterings do for that?—Yes. Lucerne is peculiarly adapted to this system. It has deep roots and I do not know of any crop which will stand such an abuse in the way of not getting water as lucerne. It can go without water for eighteen months sometimes.

56. What depth does it grow—40 feet?—I have seen roots growing 20 feet deep. In the States examples are quoted 200 feet deep.

57. You can grow fruit, I suppose?—Yes.

58. Oranges?—Yes.

59. A couple of waterings would do for them?—Yes.

60. Mealies?—Mealies very rarely pay under irrigation.

61. Wheat?—It is irrigated in certain parts of the Union under a very peculiar system—under the basin system, something like the old system on the Nile. But it is unique here and confined to particular areas in the districts of Calvinia and Kenhardt and Fraserburg, where one flood—and that one can generally expect four years out of five—is sufficient to procure an outturn of at least fifty-fold.

62. How many bushels?—They sow about half-a-bushel to an acre and get back anything—fifty to a hundred-fold. They get anything from 20 to 40 bushels.

63. That land would have to be manured, I take it?—No, because it manures itself. They let the flood into these large basins and the water stands in them for a considerable time and deposits about half-an-inch of the rich mud every year.

64. Is there much of that land?—More land than there is water for. Irrigation development has been retarded because farmers have never been able to get the produce to market. Government is now building a railway to that area.

65. Where is the area?—Along the Zak River and tributaries in the districts of Calvinia and Fraserburg chiefly.

66. What is the value of that land?—It has gone up very much of late. Three or four years ago that land could be bought at half-a-crown an acre—now it is selling at about 10*s*.

67. Is it a very remote part?—Yes. As soon as they finish the railway, of course, conditions will change. I have seen farmers burn stacks of chaff and throw milk away because they could not get rid of it.

68. Every sort of crop can be grown under this system of flooding?—Yes.

69. And from dams?—Yes.

70. Dam works are very expensive?—Yes, but these flood irrigation works, on the average, very seldom cost more than from £10 to £15 a morgen irrigated.

71. You put a wall across and turn the water on when there is a flood?—Yes, it involves diversion of the water by a weir into furrow. Reservoir irrigation can very seldom be effected under 25*l*. a morgen. It varies from 25*l*. to 40*l*.

72. What is the total area of land which you have irrigated in the Union and which is capable of it?—An attempt was made to get at it in the last census, but I am afraid I cannot subscribe to those figures.

73. Do you think them too big or too small?—In some cases too low and in others too high.

74. Can you let us have an estimate of your own?—I will try to do so.* It is almost impossible. I was very keen on using the census in 1911 and made every effort to get the information, but, judging from the returns from districts I know personally, these figures are very inaccurate.

75. I take it that there is a large irrigable area?—Yes.

76. What do you reckon, in an ordinary way, is a sufficient bit of land for a family to live on?—For land settlement purposes in the Union in Government settlements we have taken 10 morgen of irrigable land as the lower limit. I am very much averse to any smaller piece of land being given to any individual in this country.

77. Perhaps you think 30 morgen would be better?—No, that is too high.

78. Twenty?—It varies according to the quality of the soil, but I should say 10 morgen is the lower limit and 25 the upper.

79. That is to say for a man with a small capital?—Yes.

80. What capital would a man with 20 morgen want?—That is, if he gets it in the raw state?

81. He has to build his house, of course?—Before he has finished he would want one thousand pounds. He must have with that area of irrigated land some grazing land also.

82. How much?—I generally like to allow 5 to 10 morgen for every morgen of irrigable land.

83. He would want altogether, say, 500 acres of land?—Yes.

84. You talked of those Kalahari farms where you say people want 20,000 morgen—I suppose they are quite waterless?—Yes.

85. No prospect of irrigation there?—No.

86. Or subterranean water?—No, not for irrigation; all that can be done is to get sufficient water for stock.

87. And poisonous water at that, I suppose?—It all depends; we have struck some good water.

88. What is the rainfall there?—I suppose under 3 inches.

89. It is a desert, in fact?—Yes.

90. Are you satisfied with the progress of irrigation?—Yes. In the Cape I am satisfied. In the Transvaal we have not been at it as long as in the Cape, and I think, considering that the whole organisation is new, progress, on the whole, has been satisfactory.

91. Do you think those lands will be bought up as quickly as you can make them irrigable?—Yes.

92. But always by people in the country?—No, there are limits to that on this high-class land. You cannot put poor whites on to high-class irrigation plots.

93. Will not they irrigate them?—They have not got the knowledge, or the energy, or the capital.

94. You think the thing is going well?—Yes.

95. On what terms may a person buy?—Do you mean Crown land?

96. Yes.—I would like you to ask the Secretary for Lands that question.

97. **(Sir Jan Langerman.)** You gave me the impression, at all events, that only 5 per cent. of agricultural land and 95 per cent. pastoral land was the proportion in the Union?—Yes, more or less.

98. Surely that would be incorrect. Do you only refer to irrigated land?—No, first-class land on which crops can be grown with certainty.

99. Surely there is a lot of agricultural land in this country where crops are grown without irrigation?—Yes, that is included in the 5 per cent. I mean 5 per cent. in all.

100. The Western Province here and the high veldt of the Transvaal?—Yes.

101. Where mealies can be grown without irrigation?—Yes.

102. And the whole of the Free State, where you can grow mealies without irrigation?—I do not admit you can.

103. The whole of the coast belt in Natal, where you can grow coffee and sugar, and the greater part of the alluvial Transvaal where cotton can be grown?—Yes, and even then I do not think there is 5 per cent. which you can really class as land on which you can rely on a crop. There is, I am perfectly certain, a lot of land with a precarious rainfall on which you can get crops occasionally, but I do not class that as good arable land.

104. Do you call our mealie production a catch crop?—No.

105. No mealies are grown in the Union under irrigation?—I know that, but the south of the Free State and the whole of the western portion of that Province is unsuitable for growing mealies, and for the last three years no mealies have been grown there.

106. Nor wheat on the Basutoland border?—I referred only to the southern and western portion of the Free State—that is quite unfit for dry land crops. All Gordonia and Griqualand is unfit. When put into square miles that area is enormous. It comprises the bulk of the Union.

107. Have you any information as regards the quantity of water that you have raised through boring?—I can supply that.*

* *See* Appendix VI., p. 53.

* *See* Appendix VI., p. 53.

108. How many millions of gallons have you raised?—I think we could get that. You mean from the very beginning?

109. Yes.—I think we could give it.*

110. Can you also give us information in regard to the increase of cultivable land through boring in the Union?—I can give the Crown land areas on which we have bored during the last two years. The system we adopt is as follows. The land is valued at prairie value, which is nominal, because until the borehole is there nobody can live on it. When the borehole is put down and the yield of water is known, the Land Boards revalue the farms. We keep a sort of profit and loss account for this work. We do not charge any individual farmer with the entire cost of the boring. Boring on a particular farm may cost a great deal more money than Government can get for it. In another case drilling costs very little, and the value rises enormously owing to the water found. On the whole we are coming out on the right side. I make up my balance sheet for each year. If I put in an annual statement I think it will show the Commission to what extent the Land Boards consider land in these dry tracts is being enhanced in value by boring operations.*

111. According to your statement land is only enhanced by the cost of boring?—Yes.

112. If you are a business man and buy a piece of land at, say, half-a-crown a morgen, and then bore for water at your own expense, would you sell that land at half-a-crown plus the cost of boring?—No.

113. What is the increase in the value of land through boring and finding water?—You are increasing land in most cases from no value at all to an exceedingly high value—a farm for which you may have to pay a very low price, in the first instance, say, sixpence or one-and-sixpence a morgen, suddenly becomes worth 10 shillings a morgen when you have a borehole on it yielding a good water supply.

114. Now what is your information about boring? Is it the general rule that you can find water? What is the proportion of land where you do not find water?—There are very few cases where we have had absolute failure.

115. Where there is no surface water the chances are that if you bore you increase the value of that land?—Yes.

116. Therefore, however dry the country may be, and however little surface water, there is always a chance of settlement the moment you bore?—Yes.

117. There is, therefore, great scope for settlement?—Yes. You immediately turn that piece of land into a good stock farm.

118. When you speak of 800-morgen holdings, where do you refer to?—I believe most of the farms in the Rustenburg and Waterberg districts are 400-morgen farms.

119. Those are the old lands which the old Transvaal Government cut up?—Yes.

120. But the usual farms in the Free State and Transvaal are 3,000-morgen farms?—Yes. I gave those 400-morgen farms as the smallest Government farms, and I know many of these have been given out. Of course, up there the value is very great as soon as the water is there.

121. Gordonia is the only place, more or less, where you do not find water? Where is the place where you put in a whole series of boreholes and did not find water?—In one part of Gordonia we bored and found nothing but poisonous water—Epsom salts. I drilled deeper, and thought we might case the bad water out, but the water got worse. In certain other parts, where we struck water near the surface, we cased it out and found sweet water lower down.

122. Is that salty water of any value?—No, not the water referred to above.

123. What is the average depth at which you found water?—The average depth, I should say, is in the neighbourhood of 200 feet. We have a number of holes 600 and 700 feet.

124. And you get sufficient water for farming purposes?—Yes.

125. **(Mr. Garnett.)** What flow of water would be necessary to turn 3,000 morgen of land into a stock farm?—On a farm like that, unless we found 3,000 gallons of water a day, we would not consider that we had found water. It depends on the number of stock which is kept.

126. But what do you consider sufficient?—I should say on a 3,000-morgen farm 2,000 gallons a day. There is one drawback about storage schemes as the want of silt in the water necessitates fertilising the ground.

127. Have you any difficulty about getting skilled experts?—The trouble here is not only to get the engineer, but you have to train him to local conditions. We find that the raw man from oversea has to be here for two or three years before he knows anything. It applies to the farming immigrant also.

128. I suppose your drills are fully occupied?—Yes.

129. How, in your opinion, does the future of irrigation compare with the future of dry farming?—Well, I think the case for dry farming has been over-stated. There are parts which are eminently suited for dry farming, but great parts of the country are not so suited, where it is impossible to rely on a dry crop except once in ten years. I know parts of the Karroo which are said to be fit for dry farming where the rainfall is unseasonable, very irregular, and the soil in many places only 12 inches deep or even less, and where the relative humidity is extremely low, and the unfortunate people who have attempted to dry-farm there have met with failure. Even in the United States, where so much of it is done, there are States where one can farm with 12 inches of rain, and in others you cannot farm with 20 inches. You cannot go by the average rainfall alone, in this country it is no guide. All the rain may fall in two or three storms, and, on the other hand, it may fall in little showers which are useless.

130. **(Sir Jan Langerman.)** I conclude that, in your opinion, irrigation is of more importance?—Yes, I think dry farming must be confined to the Transvaal and the Eastern Free State.

131. **(Mr. Bowring.)** Is there any tendency for the volume of water to decrease in your boreholes?—No. The shallow holes show decreases. Our experience with the modern holes is that, if anything, the water is increasing.

132. You say they are 200 to 300 feet deep?—Yes.

133. In most other countries they would call that shallow?—Yes. I am putting down a couple of test holes in the Union which may be taken down to 5,000 feet in depth.

134. The deeper you go the steadier is the flow?—No, we do not, as a rule, get much benefit by going over 500 feet.

135. When you have irrigated all the land, what are your chances of getting people to occupy it?—Just at present the demand is being met well enough from inside.

136. The lands are being taken up as quickly as you can irrigate them?—At present it is so. In the last few years land has been taken up as fast as it has been available.

137. Then you think that later on you will find sufficient people with capital to occupy it?—Even now it is open to people from outside to come in and take up this land, and I know of many places where they would be welcome.

138. Are they coming all the time?—Very few are coming from outside.

139. It is your own people who are taking it up?—Yes.

140. You regard the outlook for your irrigation areas as very hopeful indeed?—Yes.

141. **(Mr. Lorimer.)** If there are certain farmers in an irrigation district who decline to come under the operation of an irrigation scheme, what becomes of them?—If the owners of two-thirds of the land capable of being irrigated are in favour of the scheme, the minority can be forced in.

142. And have they any liberty to go out?—No, they must either pay the rates or sell out.

* *See* statement subsequently furnished by the witness, printed as Appendix VI., p. 53.

143. What do you propose to grow on the irrigated fields as compared with what is grown now? Do you expect that your return will be increased crops or more valuable crops?—More valuable crops.

144. And is there a general assent to it, as far as you know, where the system has been applied?—Yes, they are most enthusiastic.

145. You did not tell us what has been the result financially, so far, of these schemes?—Before irrigation the land yielded nothing.

146. Then you got farmers on the land who must have made a revenue?—They were purely pastoral farmers and they have now become agricultural farmers.

147. They made something before, but make much more now?—Yes.

148. What is the nature of the labour colony at Kakamas—who are the people there?—It is for the submerged people. They are people who are not fit to be put on the land or to hold title at all, they can only work under supervision.

149. Do they become fit after experience?—A few of them do. But the Dutch Reformed Church who run these colonies have found by experience that the older generation of people who are put on these labour colonies can very rarely be trusted to shift for themselves. The Church place their hopes on the children.

150. Do these men earn wages or just get their keep?—In some cases they hold agricultural lands under certain conditions, but do not hold under title. Others are not even fit to do that, but labour for a wage.

151. Do these men ever become fit to stand on their own feet?—A few do, certainly.

152. What you call rates—10*s.* and 20*s.* a morgen—those are not what we call rates in England? It is a rate plus something to pay for the irrigation, is it not?—That rate is entirely to cover interest on capital and redemption on the capital cost and running costs.

153. Where do you get the water for this irrigation? Is it all by boring?—No, it is perennial or flood water in the rivers.

154. Have you water obtained by boring used for irrigation?—Yes, to a small extent.

155. Have you plenty of overflow water so far as you have gone?—Yes.

156, And for much larger operations than you have hitherto engaged in?—Yes.

157. The variations in the rates are certainly striking? In one case you spend 100*l.* a morgen and that pays well?—Yes. In that case they go in for high-class ostriches and tobacco, and the scheme includes a big reservoir.

158. There is always a continuous supply of water?—No; many of such rivers only come down two or three times a year.

159. Then you store it?—No—only rarely the flood water is spread over the land by furrows.

160. That suffices till next time?—Yes.

161. How much of that land you have irrigated is private land and how much Government?—Practically all private.

162. On the whole you find the people ready to bear the expense?—Yes.

163. **(Mr. Tatlow.)** In regard to price, do buyer and seller readily agree as a rule?—Yes.

164. Is there any provision for settling differences?—No, it must be settled between parties.

165. In the sale of Crown land—what happens then?—It is valued by the Land Board.

166. For pastoral use you consider there is prospect of a great expansion in the future notwithstanding that irrigation will help the arable land?—Yes.

167. **(Chairman.)** Can you explain the position of dolomite water? Has pumping affected existing streams and fountains?—Circumstances are very peculiar. You will see certain areas tinted blue on this map.* Those are dolomite areas. The water gradually dissolves the rock and forms underground channels. You may see water disappearing in one place and coming out miles away at another spot. Owing to the peculiar circumstances in the dolomite areas it is assumed in law that water in the dolomite formation is supposed to circulate in channels, and great restrictions are placed on the removal of dolomite water. It is impossible to dogmatise about the matter. In the Transvaal nearly all the biggest rivers have their origin in dolomite formation-fountains.

168. Are you proceeding with the Hartz River scheme?—It is under consideration. We will probably bring something forward next year. It is a complicated case, as some of the best land is occupied by native tribes.

169. **(Sir Jan Langerman.)** Is Van Wyks Vlei salt?—No.

170. When it was started, was it?—It was largely a matter of politics entirely. It is doing very well now, and the settlers are now getting good wheat, tobacco, and other crops.

171. **(Chairman.)** Can you give a table showing the amount of land brought under irrigation in each of the last five years?—Yes.†

172. And any estimate of land which will be brought under irrigation during the next five years?—Only in respect to which the department has some connection. Because there is a great deal of land which is irrigated by purely private enterprise.

173. Do you not keep track of that?—As far as we can.

174. We should like, as far as possible, an aggregate statement of what has been done and what will be done in the course of the next five years.†

175. **(Sir Alfred Bateman.)** You have had no proper agricultural survey?—No. As regards this census, as I said, it is most unreliable.

176. It was all got voluntarily?—Yes, but half the questions are asked in such a way that a lot of the more ignorant farmers will not give or cannot give a correct answer.

177. One of the most desirable things is to get an agricultural survey?—Yes.

Cape Town, Tuesday, 3rd March 1914.

Mr. JOHN WILLIAM JAGGER, M.L.A., Wholesale Merchant and President of the Cape Town Chamber of Commerce, called and examined.

(*For evidence of this witness on "Steamship, Post, and Telegraph Communications," on "Harbours and Bunkering" on "Empire Development" and "Fruit,"* see *pp.* 60, 102, 160, 317, *and on "Exhibitions," "Statistics," "General Trade Questions," and "Legislation,"* see *pp.* 124, 127, 145, *and* 181, *of* [Cd. 7707.].)

178. **(Chairman.)** You have some evidence to give us on migration and land settlement?—We do not get much emigration to this country, unfortunately. In fact the general impression is that the departures from this country amount to more than the arrivals. Last year, 1912, we had 42,026 persons landed from oversea, and 42,197 embarked. The year before it was rather better—a slight gain in numbers. Of course, no effort has been made on a really large scale to encourage emigration to this country at all, and the country is obviously in a very different position to, say, Australia or Canada. We cannot take any unskilled labour here. I think there is a growing feeling in favour of trying to get people to go on to the land, and in 1912 we passed the Land Settlement Act, under which land was reserved for oversea immigrants, but no use has been made of it so far. Also, just recently, about nine months ago, the Government issued regulations under which farm labourers could be got out, but as far as my information goes, only in a few cases have people

* Not reproduced.

† *See* Appendix VI., p. 53.

made any use of it whatever. Of course, in this country, as you know, the farmer prefers coloured labour if he can get it.

179. The cheapest labour?—Yes, and the employer, broadly speaking, always prefers it for unskilled purposes, because it is more in accordance with the sentiments of the people and is more amenable and more docile.

180. You have no recommendation to make?—No, except that we should be glad if the Government would push on immigration more—not so much immigrants for the towns, but on the land.

181. Are you cognisant with the different schemes for bringing in boys from oversea?—No. But a suggestion was made recently that we might get out boys from Dr. Barnardo's Homes in London, and place them on farms. We had a meeting and discussed the matter, but all the members of the meeting were very much opposed to the proposal because we find it so difficult to place white boys on farms in this country. Farmers are entirely accustomed to coloured labour. I can give you a case that came before my notice the other day. I happen to be a member of the Public Accounts Committee in Parliament. We had before us an official who is in charge of gaols and reformatories in this country. We have several reformatories, I may say—I think three or four. Of course, we keep white lads separate from coloured, and the official was asked, "What do you do with these boys when their time is served." And he replied, "We have no trouble "in apprenticing the coloured boys, but we have much "more trouble in getting white boys placed." And I should say that this is in accordance with the general feeling in the country. And if that is the case with our own children, what would it be with boys from oversea?

182. Then as to the Land Settlement Act?—In 1912 we passed a Land Settlement Act under which the Government is empowered to buy land that may be offered for the purpose of closer settlement, and they spent last year in buying such land 58,000*l*. They cut it up into lots, and then offer it to applicants at very easy terms. Then we have another system which is working very much more satisfactorily. Under it a man may see a farm—there is no limit to the extent—and if he wants to buy it and he can put up one-fifth of the total value, the Government will put up four-fifths for him.

183. He buys from whom?—Anybody. Say a young fellow wants to start farming. He sees some suitable land, and he agrees with the owner for a certain price. He then goes to the Government and says: "I want to buy this farm? The price is 5,000*l*. I can put up 1,000*l*." The Government will then send down their valuators and value the land, and if they are satisfied about it they will advance the other four-fifths. I should say that under that particular system land was bought last year to the extent of about 125,000*l*. It appears to be operating most successfully in the Transvaal.

184. **(Mr. Sinclair.)** As to immigration: your evidence, I think, results in this, that in your opinion there is no field here for the introduction of outside casual labour—I mean white?—Yes.

185. But as regards experts—you think there would be an opening for them?—Not only experts. But I think we have plenty of openings on the land?—If you could make provision for them on the land, which I think you could if it were taken in hand vigorously, we have plenty of room and I would favour it.

186. The Government seem to have directed their attention of late to providing facilities for bringing people to the land?—They have made provision for it. Of course, they have created machinery by which land can be got, but we complain that that provision is not worked with the energy that it should be.

187. Will you please tell the Commission what is the class of land which was reserved by the Government for settlement?—I could not tell you. I believe the purchases so far have been mostly in the Transvaal.

188. You cannot tell us whether it is first-class or second-class land?—No.

189. You tell us that the State is prepared to advance four-fifths of the amount on loan. How is that repaid?—In instalments.

190. Do they include interest and principal? Does the final payment wipe out principal and interest?—Yes.

191. I would suggest that that is a system which has worked with great advantage in some of the other Colonies?—Yes. In this connection I would like to mention that the Government has done a good bit for the landowner. We have a Land Bank making advances to landowners, and that bank has advanced a total amount of four millions, and the whole of that sum is repayable on the instalment system. They are advancing money at a very low rate of interest, 5 per cent. The bank gets it from the State at 3¾ per cent., which is less than what we are paying for it at the present time. On the last loans I should think we pay 4¼ per cent.

192. Is there an actual direct loss made by the State on advances?—On the money we are borrowing now. But there is in addition over six millions of Post Office money which they only pay 3½ per cent. upon. But at the price we are paying to-day we are losing money on advances to the Land Bank.

193. When payments are made under that system are the moneys that come in set aside for repurchases of lands in other directions?—You mean under the land settlement schemes?

194. Yes.—No, I do not think so. The scheme is only in its infancy at present, so we have hardly had time to see how it is going to work. But we have a system under which when loans are repaid they are paid in to loan account.

195. What I wanted to get at, if possible, is whether the fund is used for the purchase of fresh land?—If it really revolves.

196. Then it is automatic?—I could not tell you definitely.

197. Can you tell us whether the system has been availed of to any great extent?—Not the first system, where the Government buy a piece of land and cut it up into lots. I see from the papers laid before Parliament that there was only spent in that 58,000*l* last year. But the other system, since it came into operation last year, has been availed of very much. We have advanced a considerable sum on the four-fifths basis and it has been very successful.

198. That is working very satisfactorily?—Yes.

199. Can you tell us something more on the subject of the land settlement banks?—Yes.

200. How is the capital provided?—It is provided here entirely by the State. It stands at 3,785,000*l*., and, as a matter of fact, I expect we will have to advance more.

201. How is it managed?—By a board of four persons and a chairman, who is practically a State official.

202. Is a Minister of the Crown a member?—No. No Minister of the Crown or Member of Parliament may be a member.

203. And advances are made after careful valuations?—Yes, they are restricted under the Act. There have been so many applications for money that they have exhausted the funds advanced by the Government in the first place, and they have had to reduce their advances to a maximum of 500*l*. They are not advancing at present anything over 500*l*.

204. Has the effect of the setting up of these banks been a reduction in the rates of interest charged?—Undoubtedly. Money is advanced at the rate of 5 per cent. to the landowner plus a certain amount for repayment. I think it is only about 2 per cent. That man pays then 7 per cent., and he is not only paying his interest, but instalments off his capital. In this Province we have some big lending institutions, such as the South African Mutual Insurance Company. They in the ordinary way charge about 6 per cent.

205. **(Mr. Tatlow.)** With regard to this four-fifths arrangement under the land scheme, is that applicable to anybody in the country, or is it given only under some qualification?—No.

206. Incomers can obtain it also?—I should say so.

207. Is there any minimum or maximum? Would it apply to a small loan equally as well as to a large one?—As far as I know, there is no limit on either side.

208. Is it for the value of the land only that that money is advanced, or is it advanced to the newcomer to purchase anything in the way of implements and appliances?—No, I think it would be in the value of the land only.

209. **(Mr. Campbell.)** With regard to migration, is the balance of white people leaving this country?—Of course, you simply have these figures to go by. They show that it just about balances.

210. Do you think there is any possibility of checking that and setting up white immigration?—We hope to do so in time.

211. Is land settlement the means by which you hope to do it?—That is the only one on which we have a definite policy. You could not do the same thing here as in Australia and Canada, because our economic system is based on coloured labour.

212. But the Government has a definite policy in respect of land settlement?—I could not say, as I am not in the Government; I am in the Opposition. We think they do not carry it out very vigorously even if they have got one.

213. You have assisted passages, I think?—Yes, only to men out here who want to bring their wives and families, and if farmers wish to get out labour to assist on the land.

214. **(Chairman.)** Domestic servants?—I think that is stopped.

215. **(Sir Jan Langerman.)** In regard to the Land Bank; the advances are twofold—the one is mortgages on existing ownership and the other is to advance money to purchase land?—I think the system of buying land has been dropped now.

216. Under the Land Settlement Act?—Yes; but that is advanced by the Lands Department. I may add that we have no less than three departments advancing money—the Agricultural Department for creameries, the Land Department for land settlement, and the Land Bank.

217. It is a very small amount for the purchase of land?—Yes, 58,000*l.*

218. Can you tell what proportion of that sum was taken by newcomers?—I should say it was almost entirely taken up by residents in the country. The biggest part of the four-fifths was advanced in the Transvaal. I have no special information, because we have not had the Secretary of Lands before the Committee of which I am a member. But I should imagine it would be entirely for people in the country.

219. Do not you think that the fact of the Government retaining the mineral rights militates against people taking up land here?—Yes, I think so.

220. Because the Government buys it at the initiative of the man himself. He buys practically the mineral and agricultural value, and he has to pay the full sum, while the Government takes the mineral rights for itself?—Yes, I think that feature should be removed.

Cape Town, Wednesday, 4th March 1914.

The Hon. Sir Thomas William Smartt, K.C.M.G., M.L.A., called and examined.

(*For the evidence of this witness on "Steamship, Post, and Telegraph Communications," "Coal for bunkering," and "Fruit,"* see *pp.* 64, 103, *and* 318.)

The witness made the following statement:—

Fortunately a large number of our younger and more energetic men are going on to the land, and I feel sure there will be great developments in this country in a short period of time. I think when you are travelling through the country from here to Port Elizabeth, through the south-western districts, viâ the Cape Central Line, you will be very much surprised to see the advances that are taking place. If you could stop at, say, Robertson, and see the developments in the way of irrigation in connection with the Breede River, and see the character of the country that is being opened up there, you would be astonished at the progress of the agricultural industry and the development of the resources of those districts, as well as all over the country, greatly due, as I say, to the fact that a large number of the younger and more intelligent people in the country with the advantages of education, are going in for farming operations on modern lines.

221. **(Mr. Sinclair.)** Is it your view that the taking up of farms by young farmers is extending to any considerable extent?—I am certain of it, and if you had the facilities to bring in more suitable land for cultivation you would do a great deal more.

222. And is, there in your opinion, available much land for such settlement as you speak of?—Yes, there is a certain amount of land, but I have always held that there must be a certain amount of stimulus given to bring suitable land that is held for speculative purposes within the reach of these people.

223. Is it not the case that the bulk of the best land in the Union is already in private hands?—I cannot speak with any extensive knowledge of any portion of the Union save and except the Cape Province, but in the case of this Province the bulk of the land suitable for closer settlement is in the hands of private individuals.

224. And when the land is made available for settlement, as no doubt it will be, will not the incoming occupant be at the disadvantage of having to pay the increased cost that the present holder is fortunate enough to be able to exact?—I do not know that. I think when you go round to Port Elizabeth you should visit the Sundays River Settlement. You would be surprised at the development that is taking place there. The land in that case has been cut up into small holdings, and the possibility of these small holdings has only been brought about by the judicious expenditure of a considerable amount of capital, by bringing land under water; and the people who are taking up land there are quite prepared to pay a reasonable price for the developed land.

225. And you think the land there is changing hands at such prices as will enable the purchaser to make a living?—The land that was only worth before a few pounds an acre has changed hands now, I suppose, at 30*l.* or 40*l.* an acre.

226. And is that a good sign in your opinion? Does it not handicap the incoming settler?—Well, the answer to that will be for the Commission to visit the Sundays River Settlement, and see the position of those people to-day.

227. You suggest that there is prosperity?—I am certain they are prospering, and I am certain that the Commission, if they go there, will be of that opinion also. We have great facilities in this country for the development of small irrigation areas.

Cape Town, Thursday, 5th March 1914.

Mr. Frank Braybrooke Smith, Secretary of the Department of Agriculture for the Union of South Africa, called and examined.

(*For the evidence of this witness on "Animal and Agricultural Produce" "Cotton" and "Fruit," see pp.* 176, 274, *and* 318.)

228. **(Chairman.)** Do you see a very great future before the country in the direction of irrigation and the development of agriculture?—There will be a considerable development. If you contrast our irrigation works with the big schemes in Egypt and India, or the Western States of America, of course, we have nothing like those, but we shall do a great deal.

229. I suppose it would be impossible to give an idea of the percentage of development which is obtainable?—The Irrigation Department are making a hydrographic survey of the country now, and in course of time they will have that information, but I do not think it is available at the present time.

230. What progress is in contemplation for closer settlement and the further sub-division of farms?—You will see the provision which the Land Department makes. They offer Crown lands for settlement purposes, but the trouble is that practically all the Crown lands are outlying lands which are at present of very little value for settlement, mostly remote and mostly dry, and very largely malarial. Personally, I do not think much of it is suited for immediate closer settlement. The establishment of large farms will have to precede closer settlement. I do not think you can develop this country by small holdings in the remote parts, except in the case of irrigation settlement; they will have to come about by the division of the farms in the settled districts.

231. That is, land has to follow a compulsory course; first of all you have ranching and then sheep, and then larger farming and then closer settlement?—I think so, that is the natural process of evolution in this country as regards settlement.

232. So closer settlement will proceed from the sub-division of the now large farms?—Yes.

233. To what extent is that going on?—It is going on a good deal in the better districts, not so much through fresh people coming into the country, but through farmers cutting up their farms so as to give their sons a chance. Take the Wakkerstroom district in the Transvaal, which is the best stocked district we have in that Province. Farmers had large farms there and kept large flocks of sheep, but the farmer now says if he keeps it as a sheep farm he can only put one son on the land, but if he converts it into smaller farms he can give his sons a fair chance, and that tendency is going on very considerably; they are now changed from sheep farming to dairying. That kind of closer settlement is extending in most parts of the country.

234. **(Mr. Sinclair.)** You told the chairman that in your view large settlement would have to precede the cutting up of lands into smaller lots?—That is in the remoter areas.

235 That would involve, would it not, the buyer of the small area having to pay a substantial price for the land?—Yes, but, of course, on the other hand, it is as broad as it is long, because if he takes his farm in an outlying district he has to get water on it, fence it, and effect other improvements.

236. But is the land of such a character that when it is cut up into smaller areas the small area will provide the man and his wife and family with a living?—The land varies in this country as anywhere else.

237. But I am asking the question about the class of land that you had in mind when you told us that the larger settlement would have to precede the cutting up into small areas. Having regard to that class of land, how small an area, when it comes to be cut up, would be sufficient to make a modest home for an intending settler?—That is a most difficult question. It depends on circumstances. If the land is under lucerne, for instance, in the Oudtshoorn district, where you can grow five or six crops a year, and where each crop will be a ton or more, and that ton is worth 4*l.*, you can get from 24*l.* to 30*l.* an acre. And that is mainly profit. It does not take many acres under those conditions to make a living. Or the man may keep six ostriches, and from the plucking of each ostrich he may get 5*l.* and on that basis you may make 20*l.* or 30*l.* per acre per annum. Or you may grow tobacco or citrus trees and make 50*l.* to 60*l.* an acre.

238. What extent of such land do you think will be available for closer settlement within the next ten years?—I could not say.

239. Is closer settlement on such lands a practicable proposition within, say, ten years?—Yes, it is coming now. The Oudtshoorn district is closely settled already.

240. But I am speaking of districts that would have to be broken in, first of all, by large settlement. In those districts what areas would you anticipate will be available for settlement in ten years?—It is hard to tell. The average farm is about 6,000 acres, and on many farms you will have choice well-watered valleys, suitable for lucerne or tobacco, and citrus fruit or potatoes, and the rest of the farm will be useful for grazing and mealies. But you cannot give the extent of the areas.

241. I want to get at what field there will be within the next ten years for closer settlement, of which you have spoken?—There will be a good field undoubtedly, but I cannot give you figures,

242. Is there a disposition to enter more upon mixed farming than in the past?—Yes, and to cultivate the land more thoroughly; and the fact that land has doubled in value, as it has since the war, drives people into closer settlement.

243. I suppose the system of itinerant instruction which you have here also helps in that direction?—Yes.

244. Would you say there are substantial practical results from that system?—Yes.

245. Are you of opinion that newcomers would do better to take some time to learn before setting out themselves for practical farming?—Yes.

246. Have you many outsiders who come here to take up farming?—No; most of the people who take it up do not do it directly, but only after they have made money in the mines, or perhaps the sons of those who have made money in that way.

247. The death of the old people, I suppose, helps to cut up the land also?—Yes.

248. The newcomer is scarcely as yet a factor?—That is so. One of the great troubles in regard to the newcomer in this country is that there is so limited a field at present for white labour. If a man goes to America or Canada he knows he can earn a living in some way directly he gets there, and he can in the meantime acquire a knowledge of the country and save a little money. Here, there are not those facilities, and it is a hard job for a young man to find work on a farm where he can gain experience and save a little money to start on his own account.

249. He has to come into competition with the native?—Yes. The farmer here is more used to the native, and they have not the accommodation on the farms for the white man.

250. And they do not want them?—I would not like to say that, to do justice to the farmers. The effect of the white labourer coming here is to demoralise him very often, and I have seen a white man engaged as a groom standing still and watching a kaffir do the work, after he had been here a short while.

251. **(Sir Jan Langerman.)** About cutting up the larger farms. Mr. Sinclair said a man would have to pay much more money?—Yes, probably he would, but

I said that would be compensated for by the fencing and other improvements that had been carried out.

252. But is not that also in consequence of that farm being proved to be of a certain value?—Yes.

253. Otherwise the man would not cut it up?—That is so.

254. So he is quite justified in paying a higher price than he would have to pay for prairie land?—Yes, fully.

255. Speaking generally, would you advocate farming in South Africa on special lines, either agriculture by itself, or ranching, or cattle, or sheep, or fruit, or mixed farming?—On the whole, for the good of the country, I believe in mixed farming, and in special districts special farming. I think the farmer's interests are better distributed, his work is more evenly divided throughout the year, and he does not run so much risk from hail or drought or similar misfortunes.

256. So that, generally speaking, South Africa would not be suitable to have large areas covered by very small holdings?—No, a great part of the country can never be cut up into very small holdings.

257. We cannot look forward to a very large population on the land as some people advocate?—No, not like Belgium, for instance.

258. Nor like Canada nor the Western States of America?—No, on the whole this country cannot carry as large a population as the best land in Canada or the United States of America.

Cape Town, Friday, 6th March 1914.

Mr. George Robert Hughes, Secretary for Lands in the Union of South Africa, called and examined.

259-60. **(Chairman.)** How long have you been in charge of the Lands Department?—Since Union. Previous to that I was Secretary for Lands in the Transvaal.

The witness submitted the following memorandum :—

Department of Lands, Cape Town.

Memorandum on Land Settlement.

Crown lands are being dealt with under various pre-Union Acts and Regulations as well as under the provisions of the Land Settlement Act, 1912, and although the latter-mentioned Act is, as far as possible, being generally applied to the disposal of agricultural land still in the hands of the Crown, it is not expedient to apply its provisions to certain Crown lands even though such land in itself is suitable for disposal thereunder. Circumstances frequently render it necessary to continue to allot Crown lands under pre-Union Acts and Regulations, in order to preserve uniformity of tenure within a special and restricted area.

Pre-Union Legislation.

Cape Province.

The principal Acts in the Cape Province dealing with the disposal of agricultural lands on conditions of occupation and improvement are the Agricultural Lands Act No. 37 of 1882, Act No. 40 of 1895, and Act No. 42 of 1908.

Act No. 37 *of* 1882.—The area of land obtainable by an applicant in terms of this Act may not be less than 4 morgen nor more than 250 morgen in extent, and one-twentieth part of the area allocated must be brought under cultivation or the land occupied shall be enclosed with a substantial fence within two years of the date of issue of the licence under which allocation takes place. The period of the licence is five years, and if, at the end of this term, the licensee has fulfilled the prescribed conditions a deed of grant is issued to him, subject to the condition that an annual quitrent must be paid equal to one-twentieth of the value originally placed on the land when advertised for allotment.

Act No. 40 *of* 1895.—This Act elaborates the principle established by Act No. 37 of 1882, and provides a scheme of land settlement for use in large areas of non-arable or slightly arable ground. The main provisions of this Act are that (1) the successful applicant shall be recommended by a local land board; (2) the purchase price of the land shall be paid in twenty annual instalments; (3) the farm shall be occupied personally by the holder for the first five years; (4) the holder shall be possessed of no other farm property. The successful applicant for a farm obtains a licence to occupy it for five years, during each of which he pays one-twentieth part of the purchase price. At the end of this period, provided he complies with the conditions of his licence, or if after two years he has effected improvements on the farm to the amount of the purchase price, and has otherwise fulfilled the conditions of his licence, the licensee receives title to the land on passing a mortgage thereover in favour of Government securing payment of the remaining instalments due.

Act No. 42 *of* 1908.—This Act introduced a new principle into the disposal of Crown land in the Cape Province. Prior to 1908 it had been a generally adopted rule that no rights to land should be given by the Crown until survey had been effected and the limits of the land to be alienated clearly defined. Act No. 42 of 1908, however, authorised the Government, through the agency of the district land boards, to issue licences over dry areas of unsurveyed Crown land to applicants for what was known as "water prospecting." The idea underlying the Act was that prospectors should not work within three miles of one another and that those discovering water, either by boring or well sinking, in sufficient quantities for farming purposes, should be entitled to obtain a licence to occupy an area of about 10,000 morgen of land for five years, after which the conversion of the licence to a deed of grant would be possible. The Act was not a success, however, the causes of its failure including (*a*) the failure of prospectors to observe the "three mile limit" laid down by the Act and the difficulty of settling which of two prospectors had first commenced operations, so as to ascertain who was entitled to a licence and who was not; (*b*) the tendency on the part of prospectors to claim that water had been found, in sufficient quantities to justify issue of a licence, when a supply perhaps too weak even for domestic purposes had been obtained; (*c*) the belief on the part of prospectors that an attempt to obtain water, even if unsuccessful, justified them in laying claim to a licence deed and subsequent grant. Owing to these and other difficulties it was decided to suspend operations under this Act.

Natal.

With the exception of Act No. 44 of 1904 and amendments thereof, there are no statutes governing the disposal of Crown lands in Natal, and as the provisions of the Act aforesaid are unworkable, Crown land is dealt with by regulations issued by the Governor-General. Crown lands may be disposed of only to persons of European birth or descent, after the same has been advertised for disposal in the Gazette. It is a condition of the lease that the land shall be occupied within three months of the allotment and that the allottee shall reside on the farm for nine months in each year.

Transvaal.

In the Transvaal, Crown land is disposed of in terms of, and subject to the provisions of:—

(*a*) The Crown Lands Disposal Ordinance 1903 as amended by Ordinance No. 13 of 1906.

(*b*) The Settlers Ordinance 1902 as amended by the Land Settlement Act No. 37 of 1907.

Under the Crown Lands Disposal Ordinance, No. 57 of 1903, the Governor may dispose of Crown lands by sale, lease, or otherwise in such manner and on such conditions as he may deem advisable, not repugnant to the provisions of the Ordinance.

Farms are usually disposed of on the following tenure, viz.:—

(*a*) Lease for a period of five years with the option of conditional purchase during the period of lease or at the expiration thereof.

(*b*) Lease for a period of 21 years without the option of purchase.

(*c*) Grazing leases for a period of seven years.

The holdings are subject to conditions of personal occupation by the lessee for a period of eight months in each year.

Orange Free State.

The disposal of land in the Orange Free State is governed by various laws, and those principally used are Ordinances No. 22 of 1902 (Land Settlement Act), No. 13 of 1908 (Crown Lands Disposal), and No. 31 of 1909 (Irrigation and Settlements). The farms are disposed of on lease without right of purchase over a long period, and are subject to conditions of occupation and improvement.

General.

At the 31st March 1913, the total number of holdings within the Union (subject to conditions of occupation and improvement) which were in course of alienation under pre-Union Acts and Regulations was 5,139, in extent 5,699,529 morgen, valued at £3,475,185.

LAND SETTLEMENT ACT NO. 12 OF 1912.

Union of South Africa.

This Act, intended to further land settlement within the Union, was passed during 1912. The Act secures Parliamentary sanction to the principle of purchasing land for settlement purposes, determines the conditions which are to govern the subsequent disposal of land so purchased, and regulates the allotment of ordinary Crown lands which may be found to be suitable for settlement. Its provisions are, generally speaking, applicable to the man of moderate means who, though possessing sufficient capital and the necessary farming experience for the beneficial development of a holding, cannot, unassisted, acquire land on the terms usually imposed by private owners. Such men will be allotted ordinary Crown lands suitable for settlement purposes, or they will be placed on land acquired for the purpose under the provisions of the Act, or land specially acquired for them individually on the conditions hereinafter mentioned.

It may be of interest briefly to outline the provisions of the Act and the procedure adopted in dealing with applications made thereunder. Provision is made in the Act for the appointment of Land Boards, whose functions are of an advisory nature, for any area in the Union, subject, however, to the total number of such boards existing at any time not exceeding five; no member of either House of Parliament or of a Provincial Council may be a member. Land boards consist of five members, three of whom at least must be persons possessing a knowlege of land values, farming, and agricultural conditions in the area for which such board has been appointed.

The Governor-General is authorised to acquire by purchase, either at public auction or by private treaty, private land which is suitable for settlement purposes or exchange Crown land for private land. Every proposal to acquire land must be referred to the Land Board for consideration and report as to:—

(*a*) The value of the land and its suitability for settlement purposes;

(*b*) The water supply and the nature and value of improvements thereon;

(*c*) The demand for other land in the neighbourhood for settlement purposes, the probability of immediate application for the land, and the extent of possible subdivision of the land.

In the event of the Board considering the land suitable for settlement purposes, it must recommend to the Minister of Lands the terms upon which the land should be acquired, the maximum purchase price, and also any special conditions upon which the land, if acquired, should be offered for settlement purposes. The purchase price to be paid by Government may in no case exceed the maximum price recommended by the Board.

One of the most useful provisions of the Act is that which enables the Government to purchase a particular piece of land on behalf of an applicant, provided that he is willing to contribute one-fifth of the purchase price, and gives satisfactory security for the payment of such contribution. Every proposal to acquire land on these terms must be referred to the Land Board for investigation and report, as in the case of proposals for the acquisition of land for settlement purposes generally.

In the event of the purchase of land for an individual settler as aforesaid being approved, the Government pays the balance of the purchase price of the land, and, when transfer has been effected in its favour, the holding is allotted to the applicant on conditional purchase lease for a period of twenty years, during which period the balance of the purchase price, plus any incidental expenditure incurred in connection with the purchase, transfer, and allotment of the land, together with interest thereon at the rate of 4 per cent. per annum, is repayable in half-yearly instalments. In the case of ordinary Crown lands, holdings are allotted on lease for a period of five years, with the option of purchase, which may, subject to certain conditions, be exercised either during the period of the lease or at the expiration thereof, but this is not so in the case of land specially acquired on behalf of an applicant where there is no preliminary lease period and the applicant is deemed to have exercised the right of purchase from the date of the commencement of the lease. The first half-yearly instalment of capital and interest (the instalments are payable in advance) becomes due and payable on the date the lease commences, which is the date transfer of the land is passed in favour of the Government.

In connection with the allotment of land acquired by purchase or otherwise, and of ordinary Crown land, the procedure under the Act is to divide any of such lands as may be suitable for settlement purposes into holdings which vary in extent and valuation according to the district, proximity to a railway line, climatic and soil conditions, &c. The valuation placed on land acquired from a private owner for the purpose of allotment must be at least equal to the cost price, including costs of transfer, subdivision, valuation, &c., and in the case of ordinary Crown lands the present market value of the land. When the land is available for allotment, applications are invited therefor in the Union Gazette and in one or more newspapers, particulars being given in the Gazette notice of the situation, extent and description of the land, the rent, and the ultimate purchase price, in the event of the option to purchase being exercised, and any special conditions which may attach to a particular holding. Holdings must be so advertised in the Gazette for a period of at least ten weeks. As soon as this period has expired all applications received are considered and dealt with on their merits by the respective Land Boards, who submit recommendations to the Minister as to the applicant to whom they consider the farm should be allotted. In the event of there being two or more applicants for the same holding with equal qualifications, it is customary for the board to have recourse to lot. The recommendations of the Board are considered by the Minister, in whose discretion it is either to approve or refuse the recommendations. As far as possible, preference is given to applicants who are not already the owners of land. It is also provided in the

Act that holdings may be offered by notice in the Gazette to applicants from oversea. Holdings so offered may not be allotted until at least three months have expired from the date of the first publication of the notice.

Allotments, whether of land specially acquired on behalf of an applicant, or of land advertised as available for settlement purposes, can only be made to applicants possessing the qualifications prescribed by the Act, *i.e.*, they must be at least 18 years of age, possess qualifications sufficient for utilising the land the subject of the application; intend in good faith to occupy personally and develop and work beneficially the said holding; be of good character; possess capital sufficient to develop and work the holding beneficially; or, in any special cases, possess such amount of capital as, after report by the board, the Minister may deem fair and reasonable. Applicants are furthermore required to declare that they will develop and work the holding exclusively for their own benefit and the members of their families, if any.

Holdings which are gazetted as available for disposal under the provisions of the Act are allotted on lease for a period of five years, the rental being calculated as follows:—

For the first year no rental is charged;

For the second and third years rent is charged at the rate of 2 per cent. per annum on the valuation (*i.e.*, the ultimate purchase price); and

For the fourth and fifth years at the rate of 3½ per cent. per annum on the valuation.

All rentals are payable half-yearly in advance. The allottee has the option of acquiring the land at any time during the currency of the lease, or at the expiry thereof, on terms of conditional purchase extending over a period of 20 years, the purchase price, with interest thereon at 4 per cent., being payable in 40 equal instalments, half-yearly in advance. The allottee may pay the balance of the purchase price at any time or in instalments of not less than 100*l.*, but he cannot claim a Crown grant transferring the holding to him until 10 years have expired since the land was allotted to him. This provision also applies to cases where Government has specially acquired land on behalf of an applicant.

The two most important conditions governing allotments are those requiring the occupation and improvement of holdings by the allottees. The success of any scheme of land settlement must, to a large extent, be dependent on a strict compliance with those conditions, and they are, therefore, fully defined in the Act. Non-compliance by allottees with the conditions of personal occupation has been, in the experience of the Department, the principal default with which it has had to contend. Every allottee is required personally to take possession of the holding allotted to him within six months from the date of allotment, and must reside thereon and make it his usual abode for at least eight months in every year, provided that exemption may be granted by the Minister from compliance with this condition on the grounds of illness or other good reasons. Every allottee of a holding on which no improvements exist at the date of allotment must, during the first five years of his tenure, effect improvements on the land to a value of not less than 10 per cent. of the ultimate purchase price of the holding. All rights to minerals are reserved to the Crown, and holdings may not be sub-let, nor may the leases thereof be assigned, transferred or hypothecated, without the consent of the Minister.

Advances may be made for the purpose of providing a lessee with stock, implements, seeds and other things necessary to develop and work the holding beneficially. It is also provided that the Government may before or within twelve months after the allotment of the holding cause work and labour calculated to improve the holding to be effected thereon, in which event the cost thereof is treated as an advance to the allottee. Advances may not exceed 50 per cent. of the total capital expended by the allottee on the improvement of the holding, and the total amount of advances so made to any allottee must not exceed 500*l.* The advances bear interest at the rate of 4½ per cent. per annum, and are repayable in seven half-yearly instalments, the first of which becomes due and payable at the expiration of 18 months from the 1st January or 1st July, whichever of these dates may next succeed the date on which the advance was made.

The Land Settlement Act was brought into force in October 1912, and the following figures indicate the extent of the operations thereunder:—

Land purchased in Terms of Section Ten of the Act, for Subdivision and Disposal, during the Year 1913.

Province.	Area.		Purchase Price.		
	Morgen.	Sq. Rds.	£	*s.*	*d.*
Transvaal -	1,369	161	4,921	1	6
Natal - -	12,940	300	49,803	2	2
	14,309	461	54,724	3	8

Approximate average price per morgen—£3 16*s.* 6*d.*

Land purchased in Terms of Section Eleven of the Act, under which One-fifth Contribution is to be paid by Applicant.

Applications.	Number.	Area.	Valuation.	Average price per Morgen.		
During year 1912.						
		Morgen.	£	£	*s.*	*d.*
Approved -	19	19,295	34,163	1	15	5
Refused - -	25	26,021	69,775	2	13	7
Abandoned -	13	8,973	19,535	2	3	6
	57	54,289	123,473			
During year 1913.						
Approved -	100	45,745	153,124	3	6	11
Refused - -	91	53,241	165,414	3	2	2
Abandoned -	81	59,642	138,870	2	6	7
	272	158,628	457,408			
Under consideration at 31.12.13.	20	9,197	28,439	3	1	10

No allotments of ordinary Crown lands advertised for disposal in terms of section 16 of the Act were made during 1912, owing to the period of gazettal prescribed by the Act not having expired at the 31st December of that year.

The number of allotments made to the 31st December 1913 was 120, in extent 121,024 morgen, valued at 102,797*l.*

The total number of holdings gazetted to the 31st December 1913 was 182, in extent 223,661 morgen, valued at 151,807*l.*

Area of Crown Lands in the Union.

Cape Province.

The total area of the vacant Crown lands in the Province of the Cape of Good Hope, including reserves other than forests, but excluding commonages, outspans, locations, and the first railway grant, is approximately 10,690,611 morgen. Of this area 1,780,878 morgen are surveyed Crown lands, which are vacant, and 3,948,966 morgen comprise unsurveyed Crown lands, which are also vacant. The remainder of the area consists of reserves.

The above statement was prepared in June 1909. A fresh statement is being prepared, but it will take some months before it will be completed.

Natal.

The area of vacant Crown lands in Natal and Zululand which has been surveyed into farms is 403,825 acres. The area of unsurveyed Crown Lands not specially reserved for natives is 1,688,580 acres.

Transvaal.

The total area of Government ground in the Province of the Transvaal is 10,196,306 morgen. Of this area approximately 2,724,747 morgen has not as yet been surveyed into farms. The area given above includes locations registered in the name of the Government, and town lands not yet granted to Municipalities.

Orange Free State.

The total area of Crown lands in the Orange Free State is approximately 52,880 morgen.

Speaking generally, the areas of unalienated Crown land are situate:—

(*a*) In the Waterberg, Rustenburg, Zoutpansberg, Marico, and Barberton districts of the Transvaal.

(*b*) In Bechuanaland, and in the Kenhardt, Prieska, and Namaqualand divisions of Cape Colony.

(*c*) In Zululand and along the Drakensberg mountains in Natal.

Transvaal.

As regards the unalienated Crown land in the Transvaal, it is well known that the northern districts are, for the most part, extremely dry. Owing principally to the lack of water on farms which had been allotted in previous years the number of surrenders or cancellations of leases in the Transvaal in 1912 almost equalled the number of allotments. This was mainly due to the lessees being unable to work their holdings for want of a sufficient water supply, or to their not occupying the land at all from the same cause. In several cases the allottees had spent portion of their capital in unsuccessful attempts to find water, and, as it was formerly the practice to forfeit or to accept surrender of leases and merely re-advertise the farms for disposal as they stood, it follows that the allottees who surrendered their holdings, or whose holdings were forfeited, were not, in all probability, the first persons to put, on these farms, capital into useless well-sinking. There is no doubt that the leasing of dry farms proved in the past a distinct failure. They were taken up mostly by men of limited capital who could ill afford to lose the cash part of it in sinking wells, with the result that after spending 100*l.* or 150*l.* on such wells, without obtaining an adequate water supply, the allottees had, as a rule, neither the means nor the will to retain the farms. The policy of boring for water on vacant holdings wherever necessary, before advertising the land as available for allotment, has in consequence been adopted.

In the north-eastern Zoutpansberg and in the Barberton district the greater portion of the Crown lands is unsurveyed and is principally situate in malarious regions. There has been little or no active demand for land in these parts, but in the Zoutpansberg district, between Pieterberg and Louis Trichardt, there is a fairly large tract of Government land which is in demand, and boring operations are now being undertaken on a number of farms situate within the area, with a view to their being made available for settlement purposes.

In the Waterberg district the farms along or near the Limpopo river are being slowly taken up, but certain holdings have been advertised for some considerable time past without result. The farms, in what is known as the Pamen Veld, are very small—approximately 1,500 morgen—and the applicants for such farms are generally local men. No boring is being undertaken in this part, owing to all available drills being engaged on farms nearer to the railway line. The land is poor for agricultural purposes and is far distant from a market. It is not, in fact, likely to be taken up except for cattle-farming, in which event it seems certain that the holdings will have to be from 3,000 to 5,000 morgen. The farms in the Harde Veld in the north-eastern portion of the Waterberg district are also very dry, and, unless for cattle ranching on an extensive scale, are not likely to be taken up in the near future. In the area known as the Springbokflats, to the east of the railway line from Pretoria to Pietersberg, there are vacant Crown farms which have been noted for water-boring operations. With isolated exceptions none of the vacant Government farms in the Waterberg district have permanent water.

Orange Free State.

With regard to the Orange Free State, no Crown lands are available at present for disposal in that Province. There are forty Government farms held under lease, mostly for a period of five years. When the leases expire the advisability of the disposal of the land under the Land Settlement Act will be considered.

Cape Province.

In the Cape Province there is practically no Crown land available for settlement purposes outside the North-Western districts. In Bechuanaland, however, thre are large tracts of vacant Crown land. In the Mafeking district the area belonging to the Crown is approximately 248,200 morgen, *i.e.*, about 80 to 100 farms; on that area boring operations will be undertaken before the farms are disposed of. There is a tract of land in the Kuruman district, about 390,000 morgen in extent, *i.e.*, approximately 160 farms, which has for years been occupied under authority of grazing licences, whose holders have, in many cases, established water supplies by sinking wells. It is, therefore, not the intention to withhold these farms from disposal until boring has been completed, as the land is now suitable for occupation.

In the Gordonia district there are large areas of vacant Crown land, but the country consists of rolling sand-dunes with very low scrub, and practically no water supplies for the greater part of the year. Water-boring is being commenced to the west of the Nosop river, but the only water found, so far, has been brackish.

In Namaqualand there are about 100 vacant surveyed farms and on these it is proposed to bore for water as soon as drills are available. The difficulty hitherto has been that steam drilling is impossible owing to lack of fuel and to the distance which water had to be transported. In the Van Rhynsdorp division the Government has about 50 farms, which the magistrate reports are unsuitable for effective settlement, the land being suitable, for the most part, for grazing purposes only.

Natal.

In Natal most of the available Crown lands is situated in districts remote from markets and, with the exception of a few areas, it is more suitable for grazing than for agriculture.

There are about 10,000 acres of Crown land in the Alfred Division, but the larger proportion, which is situate in the neighbourhood of the Ingeli mountain, is unsuitable for European occupation and is unlikely to be applied for, except for summer grazing purposes. In the Umzimkulu division the Government owns approximately 45,000 acres of land, 8,000 acres being situate in the neighbourhood of the Umtamvuna river, while 7,000 acres are situate on the Oribi flats. The Umtamvuna and Oribi flat lands are well adapted for general agricultural purposes, but, owing to their distance from the railway, the settlers who have taken up land in the district have considerable difficulty in getting their products to the markets, and it is unlikely that the remaining farms will be taken up until either the railway is extended or the people are allowed to use ox-transport. The remaining lands in the division are much broken in character. There are about 30,000 acres of Crown land in the Ixopo division, but

they are mainly situate in inaccessible parts of the district, in addition to being broken in character. The Inhlamvini lands are the exception, however, and these have been taken up, excepting 12 sub-divisions. In the Ipolela, Underberg, and Impendhle divisions there are approximately 160,000 acres, but most of the land is situate in the immediate neighbourhood of the Drakensberg mountains, and is unsuitable for occupation. In the other divisions there are also very few farms available which are suitable for settlement. Speaking generally, the Crown land is suitable for grazing only, is situated in thorny or broken country, is too far from the railway, or is entirely unfit for permanent occupation by Europeans.

261. **(Chairman.)** We are indebted to you for the very full memorandum you have prepared on the amount of land available, and the legislation in force. I wish you to state to the Commission what the operations of your department are precisely; what it is you aim at, and what progress you have made?—The department, of course, deals with land such as town lands, and land which is quite divorced from land settlement.

262. That we will leave out?—You want me to confine myself to land settlement?

263. Yes.—The provisions of the Land Settlement Act, which are outlined in the memorandum submitted, indicate the policy pursued in connection with the acquisition of land for settlement purposes, and the steps that Government may take with a view to the settlement not only of waste Crown lands of the country, but also in developing private lands. Section 10 provides for the acquisition by the Government of private lands for general settlement purposes, and during 1913 an area of 14,309 morgen was acquired at a cost of 54,724*l*., the average cost being 3*l*. 16*s*. 6*d*. per morgen. When land is acquired, it is sub-divided into holdings for disposal to the public, and in each case of lands so acquired it means displacing one person and substituting several settlers for him. That is under section 10. Section 11 enables the Government to acquire private land for any person possessing the qualifications laid down in the Act. The land is chosen by the applicant himself. He usually obtains an option, which must be in favour of the Minister. He brings it to the department, and gives a guarantee that he is prepared to contribute one-fifth of the cost price of the land. The Land Board inspects the land and, if it considers the land is worth the price asked, and the applicant is otherwise suitable, the Board will favourably recommend the application. The Act was only brought into operation on the 16th October 1912, and in that year 19,295 morgen were acquired for private applicants to the value of 34,263*l*.

264. Acquired from whom?—From private owners

265. Expropriated?—No, it is a question of voluntary purchase. It is a matter of negotiating with the private owner, and if the negotiations are successful, of acquiring the land by the Government. I think I might refer to the statement I have prepared. The extent to which the public have taken advantage of section 11 during the period October to 31st December 1912, is shown by the fact that 57 applications were submitted. During 1913, 292 applications were submitted in terms of section 11, of which 100 applications were approved. The area of land involved was 45,745 morgen, the valuation was 153,124*l*., and the average price was 3*l*. 6*s*. 11*d*. The average price of land acquired during 1912 under section 11 was 1*l*. 15*s*. 6*d*., and the applications submitted represented 105 applicants, partnerships included. It might be interesting to have some information as regards the nationality of the applicants: 79 were South African, 21 British, 3 Colonial (other than South African), and 2 naturalised British subjects, and of the 292 applications received during 1913, 65 per cent. were in respect of land situated in the Transvaal, 22 per cent for land in the Free State, 9 per cent. for land in the Cape, and 4 per cent. for land in Natal. It is therefore evident that the greatest demand is for agricultural land situated in those parts of the Transvaal and Free State where in normal seasons a moderate rainfall for summer crops may be anticipated. With the exception of the Cape Province, the holdings applied for were of 500 morgen. The Cape applications are principally for land suitable for stock-raising, and therefore a larger area is necessary. I would like to emphasise this, that there is little or no evidence at the disposal of the department that there is any demand for land for agricultural purposes of from say 50 to 75 morgen. There is a good deal of talk about adopting a system of small holdings similar to that prevailing in the western parts of the United States and Canada of 160 acres, as a dry holding. My experience is that there is nobody in this country who comes to the Government asking for a holding of so limited an extent in order to conduct dry land farm operations.

266. The size being ——?—Approximately 500 morgen—well over 1,000 acres. Apart from that, the experience of the department is quite opposed to small holdings for dry land farming. Under the Crown Colony Government, settlers were placed on an area in the Waterberg district of the Transvaal known as the Springbok Flats. Previous to the war that area was leased by the Republican Government for grazing purposes, and little or no cultivation was carried on. The Crown Colony Government had the land inspected. It was said to be suited for agriculture, so they started a settlement. Of the 31 settlers who were placed on the land originally, only 15 now remain, the places of the other 16 have been filled up by other persons. The holdings allotted were 640 acres in extent—one square mile. The nationality of the settlers was mostly South African and Australian, and they found that a holding of 640 acres was altogether too small. They had, of course, small stock and cattle on the holding which required grazing, and they applied to the Government for an increased area. After investigation by the Land Board it was decided to give them another 640 acres, which brought the area to, say, 500 morgen. Then, again, the late Transvaal Government laid out a settlement at a place called Stompiesfontein, on the East Rand about 30 miles from Johannesburg. This land was subdivided into 80-morgen plots, and the persons placed on it were mostly Dutch. They received assistance in the shape of building and fencing material, draught animals and breeding stock. At the present time the results of the settlement clearly show that 80 morgen is too small for dry-farming operations. I am now speaking more particularly of ordinary mixed farming. What I am saying has no relation to the size of the holding necessary for fruit-growing in the Western Province, where, of necessity, it is smaller.

267. Or for dairying?—It is rather too small for dairying in the Transvaal. Coming now to section 16, *i.e.*, the section under which the department offers available Crown lands for disposal in terms of the Act, 182 holdings have been gazetted since the Act came into force on the the 16th October 1912, representing an area of 223,661 morgen, valued at 151,807*l*. The average area of the holdings was 1,228 morgen, and the average value per morgen approximately 14*s*. This indicates the class of Crown land available for disposal, and it may be of interest to the Commission to know the extent to which there is a demand for land. During 1913, 127 allotments were made under section 16, of a total area of 122,141 morgen, representing a value of 106,207*l*. The approximate value per morgen of the land was 17*s*. So you can see that the better class of land offered was taken up. The number of applications made or submitted for the 120 holdings was 2,740, of which 2,074 were for land in the Transvaal, 372 in the Cape, and 294 in Natal. I want to make it clear that when I say there were 2,740 applications it does not imply that there were 2,740 applicants. Many applicants made alternate applications. I should say that the figure 2,740 would require to be reduced by one third to get at the number of different applicants who made application. But I best illustrate the point by giving you one or two special instances. On the Bechuanaland border, the Government had three small holdings, portions of the farm Maribogo, each in extent 600 morgen. 156 individuals made application for the three holdings, submitting 226 applications. In the Elliot district of the Cape

7 holdings were offered, being portions of the farm Lichfield. They averaged in extent about 175 morgen to 200 morgen. 107 individuals submitted 372 applications. In the Heidelberg district, Transvaal, six holdings on the farm Wolvenbank of an average area of from 350 to 390 morgen were offered. 230 persons made 549 applications. For the farm Roodepoort in the same district we had 114 individuals making 78 applications. In this case the figures are reversed, the difference representing partnerships. For three holdings in the Rustenburg district, Transvaal, 141 persons submitted 250 applications. It is perfectly obvious that there is a very considerable demand from persons resident within the Union itself for good agricultural land. May I now deal with the available Crown lands? I think it is fairly well dealt with in the memorandum submitted, but I should like to give a few details as to where the land is situated.

268. Have you a table of the whole of the lands?—I did not attach it to this, but I can supply a copy to the Commission.*

269. It is rather scattered?—I have picked out the principal areas. Take the Cape Province. You can dismiss the Free State from your consideration altogether, because at present there is only a limited extent of land in the hands of the Crown—some 60,000 morgen. In the Cape, Calvinia district, 351,000 morgen; in Kenhardt, 1,120,000 morgen; Namaqualand, 2,491,000 morgen; Van Rhynsdorp, 268,000 morgen. All these districts adjoin and the class of land is similar; that is to say, it is of poor quality and the average size of farms in that area may be gauged from a list of holdings recently published in the Gazette of land available for lease. There were 60 holdings offered and the average area per holding was 8,921 morgen, or about 20,000 acres.

270. You have a total in the Cape Colony of ——?—The total is given in my memorandum, and is in round figures 10,000,000 morgen. Taking the Transvaal, in the Barberton district, the Government has 1,061,000 morgen; in Lydenburg, 822,000 morgen, in Rustenburg, 477,000 morgen; Waterberg, 1,435,000 morgen; Zoutpansberg, 5,199,000 morgen.

271. The total for the Transvaal is ——?—Those figures do not represent the total for the Transvaal, but the total in the Transvaal is about equal to the total in the Cape—in round figures 10,000,000 morgen. I would, however, point out that these areas include land which has been set apart for game reserves and also land which, since the figures were compiled, has been noted provisionally for alienation to natives as locations. But in each of these districts there is only a very small percentage of land which is free from malarious conditions. I should also explain, as regards the Crown lands in Rustenburg (because portions of that district are the most fertile in the Transvaal, and the Commission may possibly be misled unless I explain), this particular land is in the northern part. It is not in the fertile region of the Zwart Ruggens Valley. Then as regards Natal, the total area in Natal is 1,688,000 acres, and the principal districts in which it is situated are Underberg, 131,000; Alexandra, 49,000; Ixopo, 60,000, and Vryheid, 48,000. Much of this area is malarious. The land in the Underberg division is healthy but is situate on the slopes of the Drakensberg, and is only suitable for grazing, and very rough grazing at that. It is not suitable for disposal on the terms of occupation provided in the Act, and may, therefore, be ignored. So far as I can ascertain, no attempt has been made to obtain a soil survey of the whole Union. The only attempt, and I think it is one which does not afford much help, is in connection with the last Census. I think it is unreliable, because I believe the majority of the farmers did not understand the returns they were called upon to furnish. I have a report of certain land which was held jointly by the Government and the Rhodesian Railways in Bechuanaland. The Government's ownership represented two-thirds and the Rhodesian Railways one-third. The price paid by the Government for the interest of the Rhodesian Railways was 34,500*l*. The Land Board of the Free State was sent to inspect it with a view to its subdivision for settlement purposes. I think it would be of interest if I read a short extract from the report of that Board. The area is roughly 400,000 morgen and lies west of Kuruman. Along the Kuruman River water is found within 60 feet of the surface. (*Reading extract.*) They recommend that holdings in that area should be not less than 2,500 morgen.

272. You have given overhead figures?—I can give you details.

273. No, what we want is the land suitable and available for settlement?—The various Land Boards are investigating the lands suitable for settlement. After the reports are to hand, applications are invited for the land.

274. And when you invite applications, do you get land settled in the majority of cases?—In most cases it is offered with right of purchase, but in certain instances it is offered on a purely grazing lease. The majority of the land in the Waterberg is really suitable only for cattle ranching. It is impossible to impose conditions of occupation or improvement. The areas that have to be given out in the Waterberg, which is suitable for cattle grazing, average about 4,000 morgen, *i.e.*, under 9,000 acres.

275. Is land settlement going on at a satisfactory rate?—It is a matter of opinion. I think, as far as can be seen at present, it is going on satisfactorily. Last year Parliament voted 100,000*l*. in connection with the Land Settlement Act and to the 31st March the commitments of the Government exceeded 200,000*l*. On the Supplementary Loan Estimate submitted to Parliament this Session, provision for 100,000*l*. is made—that is to enable the Government to meet its commitments: in other words, Parliament voted us 100,000*l*. and we have spent 200,000*l*.

276. I suppose land settlement is governed largely by two factors, railway construction and irrigation?—The whole question, I think, is summed up in the fact that people must have a ready access to market, and it is all the better if there is water. Of course, the Government has been faced with this fact, that most of its land, apart from that situated in the malarious regions, is of a dry character, and they have had to undertake boring operations before they could invite applications for it. The department has found considerable difficulty in dealing with areas which were allotted previous to Union, especially in those areas I have mentioned in the Cape—Calvinia, Kenhardt, and around Kuruman. Conditions of occupation were imposed, and as the land is waterless in most cases, certain settlers who spent their all in endeavouring to find water have had to abandon their holdings. The object of the Government has been defeated, and instead of putting people on the land and helping them to get on their feet, they have converted them into paupers. It is now the invariable practice of the Government to bore for water in these dry areas. I understand that the Director of Irrigation has explained fully the operations of his department. I should like to mention in regard to Namaqualand, Kenhardt, and Calvinia that the estimated carrying capacity is one sheep to 21 acres, and the water supply, generally speaking, is brackish.

277. The water you bore for?—Surface water. The Irrigation Department is finding sweet water in portions of the area. As bearing on the increased value of the land, I might give you a few figures dealing with the Imperial Land Settlement Boards. The settlements formed were undertaken under Crown Colony Government. In the Free State, 546 settlers were placed on land in extent 655,563 morgen (the average size of the holdings being twelve hundred morgen), and valued at 1,033,000*l*. The average valuation of the land per morgen is 1*l*. 11*s*. 6*d*. In the Transvaal, 443 settlers were placed in possession of 461,549 morgen, the average size of the holdings being 1,207 morgen and the valuation of the land 375,293*l*., while the average value per morgen was 16*s*. 3*d*. In

* Not reprinted.

1912, Parliament passed an Act which enabled the Government to issue Crown grants to these particular settlers, and simultaneously with the registration of the Crown grants to take a bond for their indebtedness, which consisted of the purchase price of the land plus the advances which had been made. I think the figures which I will quote are of interest in showing the extent to which the land has appreciated in value since the date of this settlement in 1902 and 1903. Under the Act, whenever a settler desires to dispose of his ground, he has to give the Government one month's option at the price of the offer he has received for the land. During 1913, 35 holdings in the Orange Free State were so disposed of by settlers (the option of purchase was not exercised by the Government), representing an area of 44,025 morgen; the bonds, which represent the purchase price of the land plus the advances—I regret I have not got the figures showing the purchase price and the advances separately—amounted to 71,688*l.*, and the sale price to 149,056*l.* Included in the 149,056*l.* must, of course, be considerable improvements, but the improvements would not equal the purchase price of the land, which must be something less than 71,688*l.* as that figure includes the value of advances made. In the Transvaal there have been only four holdings so dealt with, representing 5,308 morgen, on which bonds were taken for 4,266*l.* and the sale price was 11,097*l.* In each case the bond must be paid off.

278. Does that indicate the success of the experiment?—Not necessarily, but it indicates that the land has gone up in value. It may represent unearned increment in some cases, but it would probably represent in most cases an incremental value which was contributed to by the settler. In the Free State, taken as a whole, the settlers have been uniformly successful. They were placed on good land to start with. The land selected was very much better than land purchased by the Crown Colony Government for similar purposes in the Transvaal.

279. How do you contrast the result attained with the cost?—I have no means of assessing the value of the settlers per head to the State by reason of their agricultural operations. The State will get some benefit in the increased traffic over the railways, the contributions towards the customs revenue, and other indirect ways. I think the settlers have benefited the country to a very large extent in that they have introduced new methods of farming, and this has had a very wholesome effect on their neighbours. I think it is evident from the reports received, quite apart from the fact that the settlers are getting good prices for their land when they dispose of it.

280. Are a large number selling and going north?—Out of 546 in the Free State, 35 disposed of their holdings during 1913. Another factor, I think, which enables me to say that they have been fairly successful is that they pay up their indebtedness to the Government regularly. I should like also to mention that in 1913 a return was called for in Parliament as to the total number of farms in the Union.

281. Will you hand it in?—Yes.* The same return asked for information as to the area owned by members of the Transvaal Land Owners' Association. I am not in a position to say definitely what is the membership of the Association. The area owned by members of that Association within the Union is very considerable—5,754,924 morgen, so that you are faced with the fact that there is a very large area within the Union which is owned by, comparatively speaking, a few companies and persons.

282. **(Sir Jan Langerman.)** I suppose it would not be fair to ask you whether the land companies are anxious to get rid of their land on favourable terms to settlers?—I can only say this, that the terms and conditions offered by land companies which have come to my notice are, I think, most illiberal. They would not induce me to take up a single acre. In fact, they cannot compare with the terms offered by the Government in the Land Settlement Act, 1912. Not only that, but from day to day in the Transvaal I interview lessees of land companies who are dissatisfied with the terms on which they hold land, and desire to come under the provisions of the Land Settlement Act.

283. Now, you have given the number of settlers at the date of Union. What was the number of the original settlers who originally settled on the land? There are two periods, one under Crown Colony government and one under self-government. Can you give us the number placed on the land under Crown Colony government who are still on the land?—The figures are 546 in the Free State and 443 in the Transvaal. That is under Crown Colony government—say 1,000 approximately.

284. But are there not in the Transvaal, created by the Crown Colony government, settlements where practically the whole of the settlers have left?—No. But there is one settlement in the Transvaal, created under Crown Colony government, where the Government have never received a penny in respect of rent due, nor in respect of advances made, and where there is every likelihood of the Union Government having to pay compensation to the settlers; in other words, it is an absolute failure. It was an irrigation settlement in the vicinity of Potchefstroom. I do not think the Crown Colony government was wholly to blame for this failure; it acted on professional advice, which appears to have been unsound.

285. What was the cost of the settlement there to the country?—Off hand, I would not like to say, but certainly not less than from 40,000*l.* to 50,000*l.*

286. The Carlis Settlement—did not that cost a quarter of a million?—It is not quite fair to fasten that upon any Government. Just after the war, there was a certain class of burgher without land and without means of livelihood. These men were gathered into camps, and subsequently companies were formed to place these men on the land. The companies purchased land, and the Government gave the necessary financial backing. Burghers were placed on the settlements, and the settlements practically proved failures. The companies went into liquidation, and the Government, as guarantors, took over their assets. In the case at Potchefstroom, to which you refer, the Carlis Settlement, the loss was heavy—something like 50,000*l.* or 60,000*l.* Perhaps I was not quite right

* The witness subsequently handed in the following statement :—

The Number of Farms within the Union of South Africa.

	No. of Farms.
Transvaal	11,900
Cape Province	17,900
Orange Free State	17,052
Natal	8,653
Total	55,505

The above figures relate to original farm grants from the Crown. It is not possible to give an accurate estimate of the holdings actually utilised as separate farms, as original farms have been much subdivided and subdivisions have again been subdivided. Many of these subdivisions are being used as independent farms and many are combined with others to make one farm; this process of subdivision and amalgamation continuing incessantly from day to day.

Return of the Number of Morgen owned by Members of the Transvaal Land Owners' Association.

	Morgen.	Sq. rds.	Sq. ft.
Transvaal	5,355,461	484	—
*Cape Province	357,259	357	108
Orange Free State	31,439	407	—
Natal	10 763	204	108
Total	5,754,924	253	72

*Registrar of Deeds :—	Morgen.	Sq. rds.
Cape Town	37,090	564¾
Kimberley	6,229	393
Vryburg	313,939	—
King William's Town	—	—
Total	357,259	357¾

The above returns were prepared in June 1913.

in saying that there was no settlement instituted by the Crown Colony Government where all the settlers had left. There was one, the White River Settlement, near Barberton. The settlement was laid out on expert advice (it was an irrigation settlement): I do not think that at any time more than 10 or 12 people were settled on it. In course of time they all disappeared.

287. Do you think, looking at the settlements in the past under Crown Colony Government and Union, that these have been successful schemes?—There is a difficulty in contrasting the two.

288. Since the war—the whole period, whether Crown Colony or Union—do you think the settlement schemes have been a success?—A certain aspect of the settlement schemes has been successful and a certain aspect has been unsuccessful. I am now looking at it from the point of view of cost to the country. The best kind of settlement has proved to be the one under the Crown Land Disposal Act of the Transvaal, where land was allotted to applicants, but no monetary assistance was given. Most of the losses that have accrued on land settlement since the war in the Free State and Transvaal have been due to the financial assistance granted to settlers. Where the Government has merely contented itself with allotting land on easy terms of payment and with security of tenure, successful results have accrued and the allottees have been able to meet their obligations. The Crown Colony land settlement scheme in the Transvaal was a partial success only. There was a good deal of loss, but in the same way as the settlers in the Free State have been an example to their neighbours so have the settlers in the Transvaal. Indirectly the country has gained a good deal by reason of the fact that you have had these men from other parts of the world who have brought new ideas and assimilated the conditions of the country.

289. Were the successful settlers originally all people who were capable of farming and who had a knowledge of farming previously?—No. Many of the settlers selected by the Crown Colony Government had no previous knowledge, and many of these have disappeared. I instanced in my evidence earlier that of the 31 settlers on the Springbok Flats in 1902 and 1903, only 15 remain to-day. Sixteen have disappeared, either through death or removal from the district, on transfer or surrender of their holdings.

290. The class of settler the Government would select—would it be a settler with money in preference to one with practical experience? — The one with experience, undoubtedly. That is evident from what I say as to the recommendations of the Land Board. They take the man with experience and a reasonable amount of capital rather than the man with no experience and well endowed with capital. In fact, some of these applications—the 292 which were submitted under section 11 during 1913—were refused on the ground that the applicants had sufficient money of their own to acquire land for themselves, and they were not in need of assistance from the Government.

291. In your statement you say some applications were abandoned; what do you mean by saying some were abandoned?—The applications were withdrawn. The figures also include a proportion of applications that were approved, but in respect of which the applicants were not in a position to deposit the one-fifth cash. The figures given under "approved" on page 10 of the statement* I submitted refer only to those cases where the applicants deposited one-fifth cash, and where the purchase of the land had actually been completed. I have not said anything about the number of approvals given by the Land Board where the applicants were subsequently unable to deposit one-fifth of the purchase price, or where transfer of the land could not be given owing to various difficulties that have arisen.

292. That does not mean, then, that the people withdrew from the bargain because they could get better terms elsewhere?—No.

293. They are satisfied with the terms Government offer?—None of the obstacles were because the people thought the conditions under the Land Settlement Act were unsatisfactory. Most of them were due to the fact that the applicants could not put up the one-fifth cash, and some because we could not take transfer, the land being burdened with onerous servitudes.

294. Do you think the retention of the mineral rights by the Government has anything to do with holding the people back?—I think that under section 11 it has to do with the small number of applications submitted. What the applicants do not like is that they should contribute one-fifth of the purchase price, and after paying off the balance of four-fifths with interest at 4 per cent. get transfer of the land *ex* minerals. They say the minerals should not be a perquisite of the Government. They have refunded the whole of the cost price to the Government plus interest at 4 per cent.

295. Which included both prairie value and mineral value in the price paid?—Yes. Of course, we have no means of ascertaining the value of the minerals. The Board inspects the land applied for and estimates its agricultural value only.

296. Do you not think it would facilitate settlement if the Government withdrew that obnoxious provision?—Yes, I have urged that applicants under section 11 be given full rights when they get their Crown grant, and I believe the matter will be favourably considered.

297. Generally speaking, do you think from your experience that the system adopted by the Government in regard to land settlement will lead to success in future?—I think so. In my opinion the system adopted is the best means of encouraging land settlement.

298. You cannot suggest in any way how it could be altered in order to make it more successful?—No. I do not want to express any views on the merits of compulsory expropriation. That is a matter, I think, largely of policy, on which I as an official would rather not express any views.

299. **(Sir Alfred Bateman.)** In regard to the amount of land for disposal you are badly provided with statistics?—Yes.

300. Is that being remedied?—Yes, we are slowly endeavouring to straighten out the difficulties with which we were faced at Union. It is a matter of extreme difficulty to compile statistics of any kind in relation to land except in regard to current operations.

301. Have you statistics of current operations? Have you now agricultural statistics of areas?—When I say current operations, I mean under the Crown Land Disposal Acts.

302. In time you will have proper statistics?—Yes, I think so. We shall bring the matter up to date, I think, in course of time.

303. We have had an estimate, I think, from more than one witness, that about 5 per cent. of the total area of South Africa is land that could be brought under cultivation?—I am not in a position to speak from personal knowledge, but judging from information I have, and taking the average of the arable land we have for disposal, I should think that 5 per cent. is about correct.

304. That makes it about 16,000,000 acres, if you take the whole area of the Union. When you have done all, there will be only 16,000,000 acres to cultivate, independent of grazing?—I should like to make it clear that the 5 per cent. I would stipulate for includes land from which you might obtain a crop, say, once in five or ten years. There is a good deal of land on which you could get a crop if you had a sufficient rainfall. I think that is bound up in the question of having a soil survey of the Union, which is a matter of very great importance and urgency.

305. Is that likely to be done, do you think?—I cannot say. I think it would fall under the Agricultural Department.

306. Sir Jan Langerman asked you about section 11, and the effect of withholding mineral rights. Has any estimate been made as to the further price the Government would require if they gave the minerals in?—No. May I explain that section 11 does not

* *See* p. 12 of this Vol.

quite connect with the question you are putting, because that section deals with land acquired by the Government at the instance of individuals and in respect of which full rights are acquired. These individuals put up one-fifth of the price. I do not think the Government has retained the minerals in terms of the Act because of any value they place on them. I believe that the Select Committee which dealt with this matter thought that it would prevent speculation in land on account of the minerals. I do not think there is much in that, because the land that we are acquiring under section 11 is agricultural land pure and simple.

307. So it is difficult to put a value on that in this country. In England, in the midland counties, where coal is obtained, about 5*l.* an acre is about the price paid for possible minerals on the land as shown by recent sales. But you could not say in this case if, say, 1*l.* a morgen, should be allowed?—No. Under Crown Colony Government in the Transvaal when ground was acquired for these Imperial settlers the Government deducted one-tenth of the cost price when they re-allotted the land, the one-tenth being the estimated value of the mineral rights. But that is not done under Union. The Act lays down that when we buy land under section 10 for general settlement purposes with the ultimate object of sub-dividing it for the purpose of giving it out to settlers, the mineral rights belong to the Crown. The Act also says that the allotment price of the land shall not be less than the cost price to the Government, so that in that instance the whole of our purchase price is recovered, and as a perquisite the State takes the minerals.

308. I gather that, as a rule, they are not worth much?—I do not think they are, generally speaking, but one never knows.

309. I take it that, with the well-known sporting instinct in most people, they would rather like to have the chance?—Yes. The matter is capable of solution. The Government can, assuming it grants the mineral rights with the land allotted for settlement, define the State's share in the minerals, as in the case of diamonds, where, in the Transvaal, the share of the Crown is 60 per cent.

310. But the man would not be willing to give 60 per cent., would he?—No, not where he pays the full purchase price.

311. **(Mr. Campbell.)** Were there any compulsory provisions in the Act of 1912?—No. We have been accused of doing nothing, but I would say that whenever we see land advertised in the newspapers we locate it on the plans. We more or less have information on the plans to indicate whether the land is worth making further inquiries about. If it is worth following up, we have the land inspected. If it is deemed suitable for land settlement purposes we fix a price which we think we ought to give for the land, and generally one of our representatives attends the sale. Nobody knows who he is, and we endeavour to buy the property. Not only that, but we have requested the magistrates to let us know when they hear of land suitable for settlement being offered for sale in their districts, and to give us full particulars, so that the matter may be investigated. Apart from that, we have also written to large landowners, asking them whether they are prepared to dispose of their property. But I must say our efforts have not met with great success, as witness the small amount of land we have acquired in fifteen months.

312. Where you have bought land, have you disposed of all that land. Has it been all re-allotted?—All, with the exception of five holdings at present in the Gazette, and which I feel sure we shall have hundreds of applications for. May I mention that one of the conditions which the Board has to investigate when they are considering the purchase of land is whether there is any public demand for it. Before they make their recommendation they have to consider that point, so I think it is unlikely, with the care that the Boards have taken hitherto, that we shall acquire land that cannot be disposed of. Still, at the same time, suppose we bought, say, 20,000 morgen in one block, it is not unlikely that we should get odd lots here and there which we could not dispose of—probably the tops of hills, or land very rough and broken in character. Such lots would doubtless have to be included in adjoining holdings.

313. Have you any provisions for preventing the land reverting again to large holdings, other than the non-issue of the certificate within ten years?—No, but it would be a long process.

314. In ten years the allottee can re-sell?—Yes, there is no restriction after he gets the grant as to what he should do with the land.

315. I notice that in regard to land that has been purchased under the Act of 1912, the average price per acre would work out at about 30*s.* for 1913 and 15*s.* for 1912: is that so?—Yes, approximately.

316. Does that include any very good land, or has the land that has been purchased been of an average quality?—The land purchased has been of average quality. I can give particulars as to the average price of the land per morgen in each Province applied for and purchased, *i.e.*, under section 11 of the Land Settlement Act. In the Transvaal, the land applied for was of an average value of 2*l.* 18*s.* 9*d.* and the land purchased was 3*l.* 0*s.* 4*d.*

317. That is thirty shillings an acre?—Yes. In the Free State, the land applied for was 3*l.* 15*s.* 9*d.* and the land purchased was 4*l.* 7*s.* 5*d.* In Natal the price per acre as applied for was 2*l.* 4*s.* 0*d.* and the land purchased was also 2*l.* 4*s.* 0*d.* In the Cape Colony, the land applied for was 1*l.* 13*s.* 10*d.* per morgen and the land purchased 1*l.* The lowest and highest prices of land actually purchased in the Transvaal was 13*s.* and 61*l.* 11*s.* per morgen. The latter purchase represented seven morgen of irrigable land, with grazing rights attached thereto.

318. The Government does not go in extensively for the purchase of good land, then? For instance, we understand that land in the Oudtshoorn district fetches 100*l.* an acre?—No. We have had no propositions of that character. The lowest price in Natal per acre was 25*s.* and the highest price paid 3*l.* 13*s.* The lowest price in the Cape was 1*l.* per morgen; in the Free State the lowest was 32*s.* 6*d.* per morgen and the highest price 6*l.* 6*s.* The Free State, as I think the witness that follows me will be able to testify, contains some of the best land in the Union for dry farming.

319. **(Mr. Sinclair.)** You have given us a sketch of your land legislation, which would seem to be very up-to-date. There is provision for acquiring land, provision for helping the individual, you have provision for security of tenure and for the limitation of area?—Yes.

320. With all that favourable legislation, if there is no eagerness, as I gather is the position, for settlement now, what do you suggest is the cause?—No, I do not admit that there is no eagerness. I say there is eagerness. The fact that we had 292 applications last year under section 11 of the Land Act indicates that there is a desire on the part of the public to acquire land for agricultural purposes. I anticipate a much larger number of applications this year than last.

321. Is the desire for first-class land, or for the class of land that is still left to the State?—The desire is for first-class land.

322. Is there any large extent of first-class land left in the hands of the State?—No. I should like to qualify that by saying that you may have exceptionally good land on which you cannot live on account of malaria. What you mean is available land suitable for settlement.

323. Yes. Is the available first-class land now held in private hands so held because they do not want to sell or because they want higher prices?—I should think a combination of the two would just about represent the position.

324. Then you cannot have extensive settlement on the part of those who are looking for first-class land unless you can make that land available?—That is so.

325. Does not that suggest that the requisite for future settlement of first-class land must be the compulsory taking over of it by the State?—On that point, I hope you will not press me to offer an opinion.

326. Until that land can be acquired by the State there cannot be much settlement on it, can there?—No, although certain owners are dealing with their land for settlement purposes.

327. The supply is not equal to the demand?—No, not equal to the demand by persons resident in the Union. An effort is being made by certain private owners of land to meet some of the demand. I understand a company was formed recently in Johannesburg which acquired a farm on the Sundays River, Cape, for the purpose of establishing a settlement thereon.

328. There is some, but it is small?—Yes, it is limited.

329. And the prospects of those outside the Union who may want to come here for settlement are not bright?—I think that land can be acquired, but possibly the prices asked would be fairly high. I do not think there is any difficulty in acquiring land, provided a man is prepared to pay the market price therefor.

Senator Colonel the Hon. John Joseph Byron, C.M.G., called and examined.

330. **(Chairman.)** I think you have had a wide experience of the subject on which Mr. Hughes has given evidence?—Well, I have taken a great interest in this matter in South Africa during the last ten years.

331. You have heard the evidence, and perhaps you would like to supplement it?—I have not come prepared with any extensive figures and statistics, but perhaps I may just sketch some of the circumstances affecting land settlement in South Africa, as I think this may possibly assist you. To begin with, the whole question of settlement in this country has, up to the present, been overshadowed by minerals. I may explain that originally all the railway main lines in South Africa were constructed with one object only, and that was simply as the routes to the goldfields and diamond fields, irrespective of the quality of the land that they passed through. That, I take it, has not been the case in any other new country to the same extent, at all events, as here, and unfortunately these main lines seem to have passed through some of the most barren and forbidding portions of the country, so that general attention was not directed to the agricultural resources of the country as might have been the case under different circumstances. Then, too, the development of the gold and diamond fields had the direct result of taking away a good deal of interest from agricultural and pastoral pursuits. At one time it was no exaggeration to say that practically the whole of the rural population was engaged in mining or in transport riding to the gold and diamond fields, or getting fuel, storekeeping, or doing anything except developing the country's agricultural resources. So that up to the present those circumstances have largely affected land settlement here, and will account to some extent for the backward state in which the country is now from that point of view. Then also, even in regard to the settlements under Crown Colony Government, although very successful, I think it must be admitted that originally they were more or less designed from an Imperial point of view. It was immediately after the war, and it was considered desirable that the population in the newly-acquired territories should be mixed with settlers from oversea, and I may say this, that it has had the best results in every respect, economically, socially, and otherwise. But I think the prime intention was not so much successful land settlement *qua* settlement, but matters of very high Imperial politics. So, in short, I will put it this way: the development of the permanent agricultural resources of this country has not received adequate attention in the past, and up to the present public opinion has not been sufficiently behind the movement in order to attain the results attained elsewhere; and then, no prominent man in this country has hitherto devoted the whole of his brains and his energy to this subject. Am I right in saying that Sir John McKenzie in New Zealand had a profound influence on settlement there? and I daresay that if settlement in other parts of the world could be investigated you would find that a prominent man had led the movement in each case. Now, we have suffered so far in not having had a man who devoted the whole of his time, his energy, and enthusiasm, and, may I add, patriotism, to that particular branch. Those are broadly the salient matters affecting land settlement at present, and they are affecting it at the present day. I think that may be deduced from the evidence of the last witness. We know, too, there has been no soil survey of the country up to the present. The country has not been thoroughly prospected from an agricultural point of view, though it has to a large extent from a mineral point of view, and we have no idea what our resources are. We may form too optimistic a view or too pessimistic a view, but we lack exact knowledge on the subject. For instance, it is only, I think, within the last year or two that it has been discovered that some of the Karroo soil in the river beds is the richest in the world by analysis. Naturally, that came as a surprise to many people, and therefore those who are inclined to be optimistic about the matter think there is a very great future for settlement in portions of this country which are as yet, if not unexplored, unexamined and unsurveyed from an agricultural standpoint.

332. **(Mr. Lorimer.)** I see the whole of the land operations in the Union are now conducted under the Act of 1912?—I do not think that is quite correct. I think the Act of 1912 is supplementary to other existing legislation.

333. But the settlements under the old Provincial Acts remain; they are not altered in any way?—No.

334. I should like to ask whether the policy of the Government in respect to land settlement favours freehold or leasehold tenure?—The whole instinct of the people of this country is towards freehold.

335. And in that case is there any reservation, any power of resumption in the case of land which may be declared by the Land Board or other competent authority to be likely to prove ultimately of great public value?—There are no powers of expropriation of land for land settlement purposes as far as I understand.

336. Does the law as it works now tend to prevent the aggregation of large tracts of land in one pair of hands?—No.

337. Then there is nothing to hinder a farmer, after he has paid up his instalments, or if he can get the sanction of the Minister while paying up, to sell to any man round about him who may want to get large tracts?—I understand he cannot dispose of the land for ten years.

338. After paying the final instalment?—Speaking generally, I understand he cannot dispose of the land until he has been in occupation for ten years. He does not get transfer himself till then. After he has got transfer, no matter how, he is the owner, and there is nothing to prevent him selling.

339. I noticed in the memorandum of the last witness that when land is sold or settled the minerals are reserved, but is that while the instalments are being paid up or in perpetuity?—Yes.

340. Those will remain for all time the property of the Government?—Yes.

341. **(Mr. Tatlow.)** Does the whole value of the minerals remain the property of the Government, or does the tenant enjoy anything at all?—I understand the Government retains the whole property in the minerals.

342. **(Sir Alfred Bateman.)** Are you in favour of that?—I think it has the effect of checking settlement. I prefer to see the restriction removed, because the mineral value is very speculative, and, as you have suggested, the sporting instincts of human nature have to be considered.

343. **(Mr. Sinclair.)** Take the outsider with a reasonable amount of capital. I think your study of the existing conditions makes you believe that there is for such a one a good opening, and the prospect of making

Cape Town, 6 March 1914.] Senator Col. the Hon. J. J. Byron, C.M.G.
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a comfortable home in the Union?—Well, if I may so put it, capital consists, in my opinion, of many things, of which cash is the least important. That is to say, it is possible for a settler to succeed without any cash if he possesses health, energy, and character, including such qualities as aptitude for the life, determination and grit, and, above all, some business capacity. But without these qualities it is impossible to succeed, even with cash. Some of the most successful settlers in this country now are men who had very little cash and no previous experience whatever of farming. I got a list the other day from a representative of one of these land companies. I asked him if he would go through his books specially and give instances of successful settlers who had no previous knowledge. He did so, and gave instances of many men who are now recognised authorities on such subjects as sheep-farming, dairy cattle, fruit culture, sugar cultivation, and so on, who acquired this knowledge somewhat late in life, and there are many instances of people who have been bred and born to farm work, but who have not taken the trouble to make themselves up-to-date on agricultural matters, and who have been the most abject failures as agriculturists. But the man who has business experience, health and energy, plus a little capital, will be almost bound to succeed.

344. **(Chairman.)** What do you want done which is not being done, in order to be more successful in settlement?—We want a soil survey and a water survey. We want public opinion to be educated to the true wealth of this country, which is not minerals. And, in fact, we want a large and defined public policy towards making ground available and ready for land settlement, which will only come when the people generally are educated up to it.

345. Is not that somewhat rather vague as a policy of land settlement? Cannot you be more precise?—I think, first of all, a soil survey is essential. In this respect we have never taken stock of the location and extent of the national assets. With that, we must have such information as to the size of farms, the productive capacity, the facilities for market, and so on, that will enable us to put settlers on the land with confidence. We then require to pass such legislation as will make that land available for settlement. I look on the construction of railways as a most important factor in regard to land settlement schemes, and in this we are rather behind. If we take the experience of other countries and study it and adapt it, there is no more difficulty in settling people on the land here than in carrying on any other great national work. You will always have your percentage of failures, but we can reduce this percentage very considerably by care in the selection of land, as to size, situation, fertility, and price, and in the selection of the settlers.

346. Would you care to say anything about irrigation and railway construction?—Yes, I think our railway policy now should have some bearing on agricultural development and land settlement. Our mining and coalfields are now sufficiently well connected up to the coast, and in future the aim should be to construct lines more with a view to land settlement. I need not go into details.

347. Have you any desiderata regarding irrigation outside of the policy now being pursued?—I would rather not speak of it. I do not live in an irrigation district, and I have concentrated my attention more on the dry land farming aspect.

348. Are there any other points?—I think there is a great deal of suitable land in the Union as regards the fertility of the soil. People are notoriously kept away from some of the most valuable land by the bogey of malaria, but on this question I would quote an interview with General Gorgas, from Panama, who is now in this country, and he has summed the matter up by saying that the settler in the malarious districts of the Transvaal where the land is good has less trouble in protecting himself from malaria than the settler in Dakota or Manitoba has in protecting himself from the cold. So that at once opens up a vista of almost unlimited settlement in these fertile districts. As regards the size of the holdings, I would point out first of all how backward we have been here and are still. I may say, as a matter of fact, that seven years ago, in the most progressive part of the Union, which happens to be the part I come from myself, such a thing as winter feeding was comparatively unknown. Ensilage was unknown, and rye—I can well remember when it was first planted—the majority of the farmers had never seen such a plant. But it is now very rare that you will find a farmer who is not well provided with winter feed. You will now find green fields of rye growing where formerly there were brown plains, and in this way provision is made for the sustenance of sheep in the winter season. These facts will tend to explain why people in the past considered that they must have enormous areas on which to feed their stock, so that having grazed out one portion they could send their animals to another. And little or no action was taken, owing to the size of the farms, to insure against a bad season and consequent loss of stock by developing or cultivating a portion to provide winter feed. But it is also being proved that the smaller the farm the greater the insurance against total loss. As a man cultivates his farm better he will not allow the moisture to escape from the ground as before, and if he does meet with a shortage of rainfall sometimes he will not come to utter ruin as in the past. This is only possible by reducing the size of the farm. He will supplement nature by cultivation.

349. **(Sir Alfred Bateman.)** Where is this district you are speaking of?—I am speaking of what is known as the conquered territory in the east of the Free State along the Basutoland border. As you approach the mountians there is rich fertile land averaging almost 30 inches of rainfall per annum. In this district the farms are becoming smaller and smaller.

Port Elizabeth, Friday, 13th March 1914.

Mr. Charles Huskisson Mackay, President of the Port Elizabeth Agricultural Society, called and examined.

350. **(Chairman.)** You appear to give evidence with Mr. Oscar Evans*?—Yes.

351. The heads under which you will give evidence are irrigation, agriculture, and pastoral development?—Yes, I do not know exactly in what form the Commission would prefer me to give my evidence.

352. The larger possibilities of development; minor things we need not trouble you about?—First of all, I would start with the Humansdorp district, in which the Gamtoos River is situated. At present there are four schemes being constructed there, four weirs across the river called the Cougha and Gamtoos River, the Rademeyer scheme and the Pateintre, which will probably bring about 9,000 morgen of rich virgin soil under irrigation. In the past this valley has been developed to a great extent, but all by pumping. By means of these weirs, however, they will now be able to irrigate this immense tract of country by gravitation. I then go to the Cradock district. This is an area which has undergone an immense amount of development in the last few years. First of all we come to the Tarka Bridge scheme, which has already put 1,800 morgen of virgin soil under irrigation, and then a little lower down, on the Fish River, below Cradock, to the Mortimer scheme, which includes four weirs at different places across the Fish River. One is called Marlow, bringing 1,917 morgen under irrigation, the Scanlan with 2,518 morgen, the Lime Bank with

* For the evidence of Mr. Oscar Evans, *see* p. 24.

1,789 morgen, and the Drennan scheme with 1,729 morgen. Then a little lower down below those schemes is one called the Baroda scheme, with 4,500 morgen under water. These are the large developments in the Cradock district, but there is also a quantity of work which has been done by private enterprise by farmers putting their own weirs across the rivers, bringing large tracts of country under irrigation which before was simply Karroo veldt, and now it is producing lucerne and different kinds of produce. Not only are they doing this by the construction of these weirs in the district, but they are stopping a great deal of water that formerly ran to waste. They are surveying it and they are bringing it over the Karroo, and irrigating the land by this means, and so protecting themselves from drought. I know of one instance out of many showing what the result of this lucerne-growing has been and what benefit it has been to the country. During recent years we have had a very severe drought, but there was practically only a small amount of stock lost in consequence of the drought, on account of farmers in that area having large quantities of lucerne hay put away. In that way they were able to save their stock, whereas formerly they lost a good deal.

353. What is the difference in the value of the land before and after these works have been carried out?—Mr. Evans might probably give you that better than I can, but in the olden days you could buy for possibly 2*l.* a morgen land which to-day you could not buy for 50*l.* Then we come to the Bedford district. There they have the Vitmoss scheme, which puts about 5,000 morgen of land under water, and a little lower down, in the Somerset East district, we have the Long Hope scheme putting about 5,400 morgen under water. That is as far as I can go in the Somerset East district, but in both Somerset East and Bedford there are these private schemes to which I have already referred carried out by the farmers themselves. Now, coming to the Sundays River, we have three schemes starting from Bayville.

354. **(Sir Rider Haggard.)** Is that Sundays River in this district?—Yes, not far from here. There is the Bayville scheme, the Cleveland scheme, and the Selborne scheme, and then further up than that you have the farmers who have constructed large weirs of their own. For instance, there is a gentleman just below Graaf Reinet, Mr. Olivier by name. He has put a huge weir or embankment across some ravines at a cost of 90,000*l.*, and by that means placed an immense tract of country under water; so you have these works going on right away up into the middle of the Karroo, which used to be at one time absolutely barren and is to-day growing lucerne. These are small schemes of private enterprise undertaken by many of the farmers themselves. Then, again, we come to the Longkloof, a very productive district well supplied with water, but in the past having no means of bringing that produce to market. Now, owing to a light railway having been constructed, the fruit that used to come by bullock-wagon in the olden days to this market, probably arriving in a state of pulp, to-day not only comes to Port Elizabeth market, but is shipped in fairly large quantities across the water all packed in up-to-date boxes, as fruit should be packed. That is the effect of a small light railway. Then another great development that has taken place in the Eastern Province is the growing of citrus fruit, especially in the Lower Albany district. They are now growing magnificent oranges that are being shipped oversea and fetching very good prices on the London market. They are also going in largely in that district for apples, and I noticed only this morning in the paper that there had been a very fine exhibit of apples grown in the Lower Albany district at the Grahamstown Show yesterday. In the olden days this was quite unknown. That is all I have to say on that subject, but I shall be pleased to answer any questions you may desire to ask me.

355. **(Sir Alfred Bateman.)** Who made the light railway, did the Government make it?—Yes, it was a development line.

356. And did the Government help with the irrigation?—Most of the irrigation schemes have been undertaken by means of irrigation boards, the farmers joining together and forming a board, and the Government advancing the necessary money at a low rate of interest.

357. Could you give us any estimate of the acreage that has been added to cultivation by means of these irrigation schemes in the last five years?—That would be very difficult to do.

358. **(Mr. Campbell.)** Where farmers carry out these private schemes, do they have to get any authority from the Government, or have they full rights to block up the stream and irrigate their land?—I do not think the Government has anything to do with it, they have to agree with their neighbours. You will understand that this matter of blocking up the rivers has probably caused more litigation in this country than any other question.

359. Is that litigation still going on?—No, under the recent Irrigation Bill passed by the Government, and through the farmers agreeing among themselves right along the river, that difficulty has been done away with to a certain extent.

360. In regard to this land which is reclaimed by irrigation, is there much room for extension of the system throughout this district? Would these irrigation schemes be able practically to cover the whole district, or is there only a limited area?—There are certain areas that you could never irrigate, such as the mountain lands and the stony ground, but these schemes which I have spoken about are principally on the banks of the river, where there is virgin soil deposited in years gone by.

361. Could you give us any idea as to the average cost of the land when put into a condition for irrigation, that is, the original cost of the land before the works were started, and the cost per morgen of putting down the irrigation works. Have you any idea?—No. I cannot say, it varies tremendously. To clean an ordinary piece of land to level it up for lucerne, would possibly cost 10*l.*, and that ground would probably cost 1*l.* 10*s.* to 3*l.* a morgen, but, of course, the total cost would depend on the cost of the weir and furrow.

362. That was not the cost I asked for. The cost I want is the original cost of the land unimproved by irrigation, and then the cost of putting down those works for the purpose of irrigation. Those figures must be kept somewhere, I should think. Nobody enters on a scheme without looking at the cost very carefully?—Well, I do not happen to know that figure. Of course, in some places these weirs are very primitive affairs.

363. Earth banks?—Yes, with stones packed up. Quite a lot of country near Port Elizabeth has been brought under cultivation by that means. Mr. Holland is here, and he himself has thrown a primitive bank across the river. By that means he has developed it, and brought a most valuable quantity of land under irrigation. There are many other schemes in the country of the same kind.

364. **(Sir Rider Haggard.)** Is the position this, that in this part of South Africa, as in many others, there is an enormous stretch of land which is not valueless, but which can only support a small proportion of stock, and there is a small area of land which can be brought or has been brought under irrigation?—Yes.

365. And is it the case that really the welfare of the country, the agricultural welfare, depends for the future on irrigation?—Yes, I have considered that, and I may say that up to the present it has been the salvation of the country wherever they have made irrigation works. Whenever we get droughts the farmers can now save their stock, which in the olden days would have died, practically to the last one, if they had only to depend on the ordinary rains of the country.

366. Would it be too much to say that the agricultural advance of the country during the last thirty years can be put down to irrigation?—I would not go back thirty years, I would say during the last ten years even there has been a wonderful development, but at the same time there is room for much more.

367. And the agricultural future of the country depends upon the increase of the irrigated areas?—Yes. I would say it depends on the conservation of water a great deal. If we can conserve a small portion of the water by means of these weirs we can transform a great quantity of this country into splendid land.

368. Is it not the case that even with your schemes already in action the vast majority of the water runs to waste?—Yes, a long way.

369. And that, therefore, whatever you have irrigated up to the present could be at least doubled if the water were stored?—Yes, more than doubled.

370. Probably quadrupled?—Yes, that is my opinion.

371. If that is the case, would not such doubling or quadrupling mean a vast increase in the prosperity of this part of South Africa?—Absolutely.

372. These facts are realised, are they not, by the farming community?—I think so, and wherever a man has an opportunity of putting a weir across these small rivers he tries to do so, whereas before he never thought of it.

373. Are the Farmers' Association pressing that point of view on the Government and taking corporate action towards that end?—I could not say that has been done by any other bodies than the Farming Association.

374. Are the Farming Association doing it?—Yes.

275. Is the Government contemplating any help in the matter of these schemes?—Only by means of the new Irrigation Act which they have passed, under which a certain number of farmers can form themselves into a body. The Government advances the money at a low rate of interest, repayable in a certain time.

376. Will they do that to any extent?—So far as I know it is unlimited.

377. Therefore, it seems that the matter lies in the hands of the farmers themselves to bring forward schemes, since the Government is ready and willing to give adequate assistance?—I would not like to say that it depends entirely on the farmer; it depends on the Government also to a large extent in this country. There has been a difficulty in the past of getting sufficient hydraulic engineers in this country to carry out the different works. I think Mr. Evans will bear out what I say. There are many schemes which have had to be left, because the Government have not had engineers who could survey these schemes and report on them.

378. Then the only stumbling-block in the way is the lack of competent hydraulic engineers?—Well, I should say that has a lot to do with it, because, take any kind of scheme, there are schemes upon the Vaal River and the Orange River that the engineers cannot cope with.

379. Suppose this was done, that all this land was brought under irrigation, are there sufficient people to occupy it?—I should say no, we want more population of the proper sort in this country.

380. What do you mean by the proper sort?—The farmer class.

381. It would be of no use having irrigable land if there are not sufficient agricultural people to put on to that land and to turn it to account?—No.

382. Therefore, irrigation must in one sense depend on population just as population must depend on irrigation?—I would not say that entirely, because we have a great many people who could do very much for themselves and for the country if they could only be made to work. There are plenty of them here already, but, unfortunately, they will not work.

383. Do you mean to say that you have people here who have wealth before them such as you describe but are not willing to work so as to put that wealth into their pockets?—There are some of that kind.

384. You mean a thoroughly idle class?—Yes.

385. Lucerne is a good crop under cultivation, is it not?—Yes.

386. It is a perfect godsend to the country?—Yes, and if we grew ten times as much as we grow now it would still be one of the most valuable crops that we could possibly have.

387. And this could be done, you say, by irrigation?—Yes.

388. Is it the most profitable crop?—There is nothing pays better than a crop of lucerne. You can get from four to six crops of lucerne in a year, whereas with maize, or anything else, you can only get one crop.

389. Are there any schemes afloat to put poor whites on the land with the help of Government money?—I only know of one poor white settlement in this country, and that is the Kakamas on the Orange River, which is controlled by the Dutch Reformed Church.

390. How is it doing?—I believe splendidly.

391. Are the people getting on?—Yes.

392. And so I suppose that is a good augury for the future of such schemes?—Yes.

393. Would this land grow fruit if it were irrigated?—Yes.

394. What sort of a market is there for fruit? Suppose you grow the finest quality of Californian oranges, Navels, could you dispose of the fruit?—Not locally, but England provides a good market.

395. Therefore, I should be right in concluding from what you say that there would be a very much enhanced prospect for this country if only its available waters were turned to account?—Yes.

396. **(Mr. Sinclair.)** Have the larger schemes of which you have spoken been undertaken by combinations of settlers or by irrigation trusts?—No, simply by the farmers through whose lands the rivers run forming themselves into an irrigation board. The Government then sends an engineer to report on the scheme, and if they see it is a feasible scheme they advance the farmers the money needed.

397. After a scheme has been projected and inquired into and reported on, the Government lend the money if it is satisfied?—Quite so.

398. Is the loan interminable, or do the rates include a sinking fund?—They have a sinking fund, and it is paid off in so many years.

399. Have you any idea of the approximate amount of capital that has been advanced by the Government for these purposes?—No.

400. It would be a very large sum, I suppose?—Yes.

401. And in addition to that there has been individual private expenditure?—A great amount.

402. You cannot tell us how much?—No.

403. But altogether the need for irrigation has resulted in very large funds being provided for the purpose, as so much of the prosperity of the country depends on it?—Quite so.

404. As to the land that will from time to time be available, do you think that there is room for the outsider—for the arrival in the Union of settlers from other parts of the Empire? Is there room for them to take up land? Will there be room under the schemes you have in view?—Yes, immense possibilities; there should be homes for hundreds and thousands of settlers.

405. I wanted to get your opinion as to the opportunities and prospects for outsiders coming into the Union and settling on the land?—Yes, if the irrigation works are carried out on a larger scale.

406. And they are being carried out?—Yes, for instance, one syndicate alone—the Smartt Syndicate—has put an embankment across two ravines and brought I do not know how many thousands of morgen under irrigation. That is private enterprise.

407. Are they bringing in settlers?—Yes.

408. That is a part of their scheme—to reclaim the land and bring in settlers?—I do not mean to say that they are actually importing people from over the water, but they are getting these people to come and settle on the land—those who are willing to work. But there is a large class of white men in this country who will not work.

409. You have them already. I was rather thinking of the opportunities for outsiders, and you think there are large opportunities for them to come in and take up land?—Yes.

410. Will those lands when reclaimed be suitable for mixed farming, as well as for growing lucerne?—Yes, they can grow anything on this land.

411. They will be suitable for general farming—is that so?—Well, of course, it depends on what you call general farming. If a man wanted to keep a herd of cattle on a small piece of ground it would be impossible.

412. But he can grow a little wheat and tobacco, and keep a few ostriches, can he not?—Yes, also potatoes and fruit.

413. And grow lucerne for seed, if he cannot utilise the ground for ostrich farming?—You would want a good piece of land to grow lucerne for seed, because if you are going to let your lucerne run to seed, you are not going to get five or six crops a year from it.

414. Has not ostrich farming in the past really diverted attention from what I would call mixed farming?—Yes, there is no doubt about it in my mind, but it has paid so well that you could hardly blame the farmer for going into it. It has prevented what one might call general all-round farming.

415. General all-round farming is a source of wealth to the Union which has not yet been tapped?—Yes.

416. You have been rearing ostriches instead?—Yes.

417. **(Sir Jan Langerman.)** Yesterday, in the train, we came through about 150 miles of country which did not seem to be put to any use at all?—Do you mean the coastal belt?

418. We travelled through an immense extent of land where there did not appear to be any habitation or animals. Cannot that land be utilised?—Yes, and since the farmers on the coastal belt have found out the advantage of dipping their cattle, these coastal farms have become very valuable. Although you did not see the homesteads there are some very fine farms in that area. And that is one of the complaints we have to make at present, that sufficient attention is not paid by the Government to this coastal belt, which is very valuable, because the rainfall is so regular. We have been urging on the Government for some years to give us experimental stations along the coast belt the same as at other places. There is no reason why this country along here should not grow anything you wish. I do not mean these sour pieces. But, even there, one of our merchants here has bought a tract of that land and manured it and planted it with grasses, and he has now a very fine lot of grasses established. There is no reason why these farms, if they had manure, should not grow plenty of stuff.

419. That is in the lower part here?—Yes.

420. But higher up, between this and Uitenhage, I mean?—Did you not see a very fine farm, belonging to Mr. Holland?

421. We traversed about ten thousand square miles without seeing any farms?—Yes, but the reason for that is that a good portion of this land is in the hands of companies and they are not developing it. They have let one farm, which is being worked, but the rest of the country is not being utilised.

422. The country seems to be waterless—as regards surface water?—They have a river running along the railway.

423. But you can only make use of that for about half a mile on each side?—I should say that the whole of that country, if there were a large weir constructed up above Uitenhage, every inch of that ground till you get to Redhouse will grow anything you like. It is all beautiful red soil, and if the bush were cleared off there is no reason why the whole of that area should not be under irrigation.

424. I noticed it was a good red soil and of good depth?—Yes.

425. I was wondering why it was not brought under cultivation?—The farmer I referred to was Mr. Holland, who is present here this morning. His farm was exactly the same kind of bush land that you came through, but being an energetic man and having the wherewithal to do it, he has cleared his farm, and I suppose it is worth ten, twenty, or fifty times as much to-day as when he got it.

426. What do you think the Government ought to do in the matter to open the ground for cultivation? Because, I take it, it is private land?—Yes, it is private, and some belongs to the company. I do not know what the Government could do in a case like that. But I should say the whole of that land could be made most valuable and support a large number of people if they had a weir above Uitenhage.

427. Then the only remedy to bring it under cultivation would be to tax the owners heavily?—I would not like to say that, sir.

428. **(Mr. Garnett.)** I gather from your remarks that by irrigating these areas you hope to induce closer settlement on the land?—Yes.

429. Would you say what size of holding you think suitable?—No, I would not care to say that.

430. You have laid great stress on the need for suitable people, and I suppose that one requirement is willingness to work?—Yes, that is the first essential.

431. Is it necessary, also, that the man should have capital before he can make a start?—Yes, they would have to have some animals for ploughing, and a few cows for milking, and so on.

432. They would either have to have capital in money or in stock?—Yes.

433. You would not be able to say how much capital is necessary, because so much depends on the size of the holding?—Quite so.

434. You mentioned some very large works undertaken by a gentleman who spent 90,000*l.* in erecting a dam?—Yes.

435. Is the water impounded by that dam used solely for his own estate, or does he supply it to his neighbours?—No, it is used for his own purposes.

436. Would he have any right to supply his neighbours?—Yes, he could do what he liked with the water, because it is not a river. He has impounded a flow of water on his own farm.

437. But at present he is only using it for his own purposes?—Yes, as far as I know.

438. **(Mr. Bowring.)** You told us a good deal about the land which is irrigated or irrigable: will you tell us something about the land which is not irrigated—whether there is much expansion in farming on these lands or not?—That would be what is termed in the Transvaal dry farming. Well, along the coastal belt there is an enormous extent of dry farming done. That is growing barley and oats in large quantities with absolutely no irrigation of any sort. But they grow mangold wurzels for feeding ostriches and cattle.

439. And that is quite a large industry?—Yes.

440. Have you an export in those things from Port Elizabeth?—No, we consume it ourselves practically, here or in the country. Since we have had railway communication the farmers have been able to bale their forage and send it in up-to-date style to Johannesburg or wherever it is wanted, whereas formerly they had only this market.

441. There is, I suppose, a demand for all you produce, and I suppose for more if you had it?—Yes, at the price.

442. This dry farming is not increasing very largely, I understand from what you say?—I think it is, because whereas in the olden days there used to be only the father ploughing a certain number of acres, now you have all the sons growing up and they are further developing those lands.

443. All the land in this vicinity, I presume, is taken up by private people or big companies?—Mostly by private farmers. Of course, there are a few Government reserves, which are an absolute curse to their neighbours by allowing vermin to breed.

444. Are these reserves for sale at a cheap rate?—Well, I do not think so. The Government lease some of it, but there is none for sale that I know of.

445. What do they do with these lands?—Breed jackals and vermin to destroy the farmers' crops and stock.

446. It is not open to settlement at all?—No, it is practically all leased to Kaffirs—they hire it out.

447. But not at rates that would induce settlers to come in and take up land?—No, it would not be suitable for settlers, I think.

448. It is not good land?—A great deal is forest reserve.

449. **(Sir Rider Haggard.)** Well, that is a good thing?—Yes.

450. **(Mr. Bowring.)** All the good land, then, being held privately and at a high price, there is not much chance for settlers to come in and develop it as it stands?—I believe there is going to be a large land settlement scheme established near here shortly. That valuable property which has been bought by a Johannesburg syndicate, with which Sir Percy Fitzpatrick is concerned—the Sundays River Settlement Syndicate. That is lower down than Selborne, and I believe they are going in for closer settlement there.

451. On irrigated lands?—Yes.

452. But you do not anticipate any great development or closer settlement on the lands that are not irrigated?—No.

453. The prosperity of this neighbourhood depends almost entirely on irrigation?—Yes. But, understand me, there is any amount of this coastal land that cannot be irrigated because there is no water.

454. What is the prospect of developing that kind of land?—There is no reason why, with the regular rains that we have, these farmers could not go in for dairying and grow a great deal more stuff than they do. There is no reason why they should not grow mangolds and root crops and feed their cattle and go in for dairying and poultry.

455. Dairying has not received much attention so far, I gather?—No, it is in its infancy.

456. And you are importing large quantities?—Yes, and importing eggs to the extent of about 70,000*l.* a year.

457. That, one would imagine, ought to be changed?—Yes, and milk to the extent of 477,000*l.* last year.

458. In the shape of condensed milk?—Yes. Nearly half a million. I took the trouble to extract the figures relating to stuff which you could call the products of the cow, and I found it amounted to over one million. All that we should produce in this country, and at the present time we are importing it. At least, we did last year.

459. It is most extraordinary?—Yes, and it is the kind of thing we talk about at every agricultural show we go to, and urge the farmers to go in for dairying.

460. I suppose you are advancing?—Yes, there have been great strides made, but there is still a lot of room for improvement.

461. **(Mr. Campbell.)** In answer to Sir Jan Langerman, you referred to the land we passed yesterday being in the hands of some company, and not being made use of as it might be. Is there much land in this district in that position, held by private individuals or companies, that might be irrigated and is not?—No, I should say not. That is the exception, I think.

Mr. Oscar Evans, farmer, and a member of the Land Board, called and examined.

(*For the evidence of this witness on "Animal and Agricultural Produce," see page* 200.)

462. **(Chairman.)** You have heard the evidence of Mr. Mackay. In what way can you supplement it?—Everything that he has said, so far as I have heard, I can corroborate. I do not know that I have much to add.

463. **(Mr. Campbell.)** You have had a good deal to do with the irrigation of land?—Yes.

464. I suppose you think, like Mr. Mackay, that a great deal of your success is dependent on the proper use of irrigation. We have heard elsewhere that there has been an enormous mass of litigation over water rights, in regard to streams, and so on. Probably that litigation has now been settled, and the position is fairly well understood, but can you say whether, as the law stands now, either under the Roman Dutch code or under legislation, the legal position is favourable to the proper development of irrigation?—It is better now.

465. I mean to say, is there any need for alteration by means of legislation in order to facilitate this development?—I can only say that the law is very much more favourable to proper irrigation development now than was the case in the past, because we have had a new Irrigation Act passed three years ago, and since then the chief fillip to irrigation has taken place.

466. That deals, I understand, chiefly with co-operative irrigation by bodies of farmers who combine for rating purposes; is not that the case?—Yes, but it also lays down laws for private individuals.

467. It defines the rights of private persons?—Yes.

468. And you think that the law is now generally satisfactory in regard to irrigation?—I think in regard to present conditions it is satisfactory. Of course, it is a new Act, and if any difficulties crop up they will no doubt be adjusted later on. For the present, however, I fancy it is as good as we can have it. Circumstances occur in a new country which bring about new conditions, and there may be amendments necessary from time to time. But at present I think it is a very good measure, and in favour of the general development of irrigation in the country.

469. **(Sir Jan Langerman.)** You are a member of the Land Board: what are its functions?—There is a membership of five in the Cape Colony. There are five in each Province. We have meetings at Cape Town generally, but we may meet in the Eastern District occasionally, to consider applications made for the sale of land for closer settlement purposes. Also, in the case of any man really deserving of help who applies to the Government with the object of settling himself on a good farm, we consider his application, and then report on it to the Government. On our report depends whether the Government will assist him by buying the farm or not.

470. I gather it is not part of your functions to make a recommendation to the Government supposing you see a large area in a certain district which is capable of development; you do not recommend the Government to take it up?—No.

471. Do you not think it should be a part of your functions to do that and, so to speak, hasten the development of the land?—Yes, I think so, possibly.

472. Because at present the Government knows nothing except when an application comes along?—Yes, but there is a keen desire on the part of most people who have good land to offer it. Probably 90 per cent. of the schemes have to be rejected owing to their not being considered suitable for development. It is not the lack of offers that we have to complain about so much.

473. Mr. Mackay said there were miles and miles of land which could be brought into cultivation. Would it not be to the advantage of the country if the Land Board were to make recommendations in regard to that land so that the Government could take certain steps to facilitate its development?—There is so much of that kind of land all over the country, and I do not think it would be of very much advantage for the Land Board to do that. The Land Board is capable of doing it if they wish, but it is not part of their duty.

474. Do you not think it would be advantageous if the Land Board took that question up and wherever they see an opening for development to make a recommendation to the Government?—I think it is this way—if a member of the Land Board saw there were capabilities of development in this direction he would suggest it to the people round about. He would probably say, "Why did you not offer this to the Government." It would do a great deal of good, no doubt, but I do not think you can expect the Land Board to travel about the country and hunt for these feasible schemes.

475. Not as the Land Board is at present constituted, but I mean to say cannot the Land Board get further powers to enable them to travel round and find out where the country could be opened up. Do you not think that would be a good move?—It is hard to say.

476. Otherwise the country stands still?—Well, you would have to reconstitute the Land Board. At present the idea is this: there is the Land Board and there is the Government ready to buy any lands which are considered by the Land Board to be suitable for these purposes such as closer settlement, or any ordinary individual could come to-morrow and apply to the Land Board to purchase any property on which he sees a chance of doing well for himself, if he is a poor man. I think that anybody who had property capable of closer settlement would be only too anxious to sell it to the Government. It is rather a difficult matter for any individual to carry out such schemes without assistance. It could only be done by a company like this one of Sir Percy Fitzpatrick. In that case they are going to cut up a larger tract of ground, provide water, and put people on the land. The private individual cannot do that, and he would say, "I must offer this to the Government."

477. You think it would occur to a man as a speculation to go to Government?—Yes.

478. There is no machinery to compel a man who locks up his land, or a company which locks up its land, to develop that land?—No, there is no such machinery.

479. Do you not think that is a wrong principle; the country will never make any headway as long as land is locked up in that manner?—I think to a certain extent it would be a good thing if it could be done. I think most of these large companies should be prevented from holding up large tracts of land.

480. Why a company and not a private individual?—I do not think that the private individual is such a great sinner in this respect as the company.

481. Generally speaking, you think there is room for improvement in the constitution of the Land Board in order to facilitate the development of the country?—I would say that it is a matter which requires a good deal of consideration; at the present time the system is working very satisfactorily, as far as I can see.

482. But there is no initiative on the part of the Land Board now?—No.

483. If they could have initiative powers, do you not think it would be good for the country?—It might be, but I do not think it would make very much difference myself.

Mr. Fred. H. Holland, member of the Ostrich Farmers' Association of Middelburg, called and examined.

(*For evidence of this witness on "Animal and Agricultural Produce," see p.* 203.)

The witness made the following statement:—Reference has been made to the basis upon which farmers borrow money from the Government for irrigation schemes. I may mention that there are two kinds of rivers in this country, the perennial stream and the intermittent stream. The former, as regulated by the Irrigation Act, is one that runs for not less than nine months in the year, whereas the intermittent stream is the kind you see all over the country that comes down only in flood. Now it is not permissible to throw a weir across a perennial stream, all these co-operative schemes being confined to the intermittent streams. Whereas, previous to 1906, when our Irrigation Bill was passed, any farmer had the power of blocking a co-operative scheme entirely when he did not consider it advisable in his own interests, to-day he can be compelled to allow a right of way over his land. We are allowed to put a weir in the river even on his land for the benefit of lower owners, suitable compensation being arranged by the Water Board. A further comprehensive Irrigation Act for the whole Union was passed in 1911.

Now, in regard to the subject of dry farming, I have no doubt the members of the Commission have read with interest Dr. McDonald's book entitled "The Conquest of the Desert," and also a rather able paper read by the same gentleman before the Unionist Congress a few weeks ago. I just wanted to mention that, from practical experience, I know that Dr. McDonald's statistics are unduly optimistic. I side with his arguments entirely, but when it comes to statistics, especially those dealing with citrus fruit for export, and the cultivation that might be possible on the banks of the Orange River, I can state that they are wrong. I could draw up a similar prospectus in regard to ostrich farming, for instance, and by a process of multiplication I could show that on a given area of ground it would be possible to produce ten times as much as we do. He proceeds to state that if you plant trees so many feet apart and each tree will yield so much fruit, by multiplying that quantity by so much you get such and such a result. Well, that is not correct.

We were also told just now that there is only one of these poor white settlements in the country, the one at Kakamas. But there is another one near Aliwal North, called the Arbeids Kolonie. There they have a Dutch settlement, also under the ægis of the Dutch Reformed Church, and I saw growing there a comparatively large area of wheat off which they expect to reap 4,000 bags this season. Their water is got through two turbines with a 15-inch delivery pipe from the Orange River, and in time they will be able to extend the area under cultivation very much.

Now we were also told that the absence of competent hydraulic engineers operated against the development of more of these private irrigation schemes, but I disagree with that statement entirely. A few years ago there were only three irrigation engineers working for the Government in the midland circle, controlled from Cradock. To-day there are eleven stationed at Cradock and about eight at Graaf Reinet, which will indicate the increasing assistance extended to farmers. These are all professional surveyors and trained engineers, and I would say that the progress of the country is being retarded very much more by lack of appreciation of the advantages of irrigation on the part of many of the landowners in the country. The advantages are fully recognised in the ostrich farming areas, and I side, in that connection, entirely with Mr. Evans* as regards the advantages that have been reaped from ostrich farming forcing on this development: it is recognised in the midlands, in the Uitenhage District, in Bayville, in Selborne, in Oudtshoorn, and in the Western Province. But on the banks of the Caledon River, for instance, that rises in the Mohuti Mountains in Basutoland and flows into the Orange River near Aliwal North, I have seen great possibilities of development. I have a farm myself on the banks of that river, and I have been doing my level best to persuade the Dutchmen who live around there to go in for a comprehensive scheme. The owner of the land before me got the Government expert from Bloemfontein to report on the possibilities of irrigation, but I understand the scheme, although recommended by him, has been condemned by the other landowners interested, and we have been forced to be content with a suction gas plant which places about 100 morgen of land under irrigation in place of the other scheme bringing about 700 morgen under irrigation on that particular farm. That is only an isolated instance, but it can be multiplied a hundredfold or a thousandfold. Then, of course, it has been recognised by the Irrigation Department that you must have these small educative schemes. Mr. Kanthack, the Director of Irrigation, has given evidence on that point, I believe.† These small schemes that we have throughout the country are fulfilling their duty as educative schemes. The country is not ripe yet for the colossal schemes, but eventually there is no good reason why vast tracts should not be put under irrigation both from the Orange River and the Vaal River, apart from our smaller river schemes.

484. (Sir Jan Langerman.) You referred to Mr. Kanthack. Do you know what his opinion is on the result of his surveys?—I believe he is of opinion that there are considerable possibilities of development there when the country is ripe. It is impossible to do anything until the country is opened up by means of

* *See* pp. 24 and 200. † *See* p. 1.

railways. There must be a comprehensive scheme, and I understand the Government is not prepared to spend sufficient for the purpose.

485. **(Sir Rider Haggard.)** Did you tell us that the conclusions in the "Conquest of the Desert" were unreliable?—No. It is very reliable, but I say Dr. McDonald's statistics about the profits to be derived from citrus culture are unduly optimistic.

486. Where is that area?—Below Kakamas, about 200 miles from Prieska, in the Cape. It is generally called the arid south west.

487. How far from Bloemfontein?—About 36 hours by rail, and then you would have to motor for a day.

488. Is there a large area of soil there?—Almost unlimited, and not only there but all along the banks of the Orange River.

489. What is the value of that land now?—Probably you could get river frontage land there at 8*l.* to 10*l.* per morgen. The land has appreciated very much. Formerly you could have got that land at 10*s.* an acre, but since ostrich farming has been so prosperous, this irrigable land is almost unduly inflated.

490. Is there any railway?—No. Part of Dr. McDonald's scheme is to have an electric railway driven by power derived from the falls on the Orange River.

491. Is it a good climate?—Marvellous.

492. Is it very hot?—Yes, and very dry. The rainfall is only about three or four inches per annum. Nothing is possible without irrigation.

493. Is this place fit for settlement?—Yes.

493*a*. Is it fit for small holdings?—Yes. In fact, there is a settlement already at Kakamas. The whole place is cut up into small settlements.

494. Is the soil very deep there?—Yes, from 30 to 50 feet.

495. Is it suited for all forms of citrus fruit?—Yes, and other fruit.

496. And is it suited for lucerne?—Yes, it does remarkably well; in fact, they have been turning lucerne into seed, and I myself grew some of it last year and found the germinating power to be far superior to the best imported seed.

497. Is any other land there under cultivation?—Very little. I have heard about another scheme at Upington, where the Rev. Schroeder induced poor whites and bastards of the coloured race to go in for irrigation, and I believe it has been very successful, but I should say that not more than 1,000 acres at the outside along the banks are at present used for irrigation besides the settlement at Kakamas. There are isolated islands here and there of about 60 to 100 acres in the centre of the stream which are very suitable for irrigation, and these islands are being largely cultivated, but by comprehensive schemes considerable development could take place.

498. Do you think there are 100,000 acres that can be irrigated?—Yes, along the whole banks of the Orange River and probably more. I should think that Mr. Kanthack, of the Irrigation Department, could give you reliable evidence. They have surveyed most of the banks of the river.

499. You tell us that the price of land is being unduly inflated?—Yes. The difficulty would be to acquire the land. It would have to be brought privately, or expropriated at a fair valuation.

500. It is now in the hands of people who are making no use of it, or speculators holding it over for a rise?—Yes.

East London, Monday, 16th March 1914.

Major-General Sir Edward Yewd Brabant, K.C.B., C.M.G., called and examined.

(*For the evidence of this Witness on "Animal and Agricultural Produce" and "Cotton," see pp.* 209 *and* 279).

The witness made the following statement:—

What we want is a much larger population. We want the large farms broken up. The Komgha district, which is the next one to this to the eastward, is one of the best for mixed farming in the country, and I do not think that any man there ought to have more than 500 acres, and you could keep a large population on this land, giving them from 20 to 50 acres. I may say that when I first went into Parliament I carried a resolution in favour of introducing Scandinavian and Scotch farmers. We put them on the very worst patch of ground we had, and most of them have done well. Some of them have made fortunes. I know one man who began with 20 acres only and died the other day with 2,000 and a large sum in the bank. And others have done almost as well. Of course, you have failures. There always will be those.

501. **(Mr. Sinclair.)** Do I gather from you that large areas of good land are now in private hands?—Yes. The larger farms in this district run from 1,000 to 2,000 acres, and they are almost all in private hands and are not, as a rule, developed.

502. You favour the cutting up of these areas into smaller farms?—Yes.

503. Is there any way of bringing that about except by a land tax, do you think?—It is gradually coming about without any attempt in that way by the demand for small farms. Only this morning one of the leading auctioneers told me there was a great demand for small farms.

504. By your own people?—Yes, people already in the Union, people retired from business.

505. Do they get those small farms at prices which will enable them to make homes for themselves and live comfortably?—At present, undoubtedly. I believe that in the United States land such as we have here would be well worth 20*l.* an acre; the extreme price now being given is 3*l.* an acre.

506. That would seem to be a reasonable price?—Yes.

507. Are those holders of large areas of farm land that you refer to ready to cut up their land at about 3*l.* an acre?—Well, of course, in some cases. It sometimes happens that for various reasons a farm is sold, and they find it better to sell it in two or three portions rather than as a whole.

508. The point I want to find out about is whether small farms are available for settlers to-day if the small settler wants to come in?—I am afraid not. It is difficult now to meet the demand for small farms.

509. That is, the demand by those who are already here?—Yes.

510. Would you suggest there was room for outsiders to come here and take up small farming?—Under a proper scheme of immigration there is abundant room. There is room for a very large population between here and the Keiskama.

511. Would the land be available?—You would have to look out for farms and buy them as they became vacant.

512. Do you think the competition of new-comers would run up the price?—Eventually, no doubt. I do not understand why men who are situated as I was when I first settled, an officer on half-pay, do not come out and settle on this land. You need not work very hard, and you have advantages such as no other Colony has in the way of labour. Your wife is not compelled to work as she is in Canada or Australia, and I have never understood why a large number of that class has not come out.

513. **(Sir Rider Haggard.)** Do you consider that the population in this part of the Cape Colony is

insufficient for intensive farming?—Entirely insufficient at present.

514. How would you propose to add to it?—I can only say this. We carried out a scheme some forty years ago of getting a quantity of land, dividing it up, and giving to each family, say from 15 to 20 acres of agricultural land, leaving the rest of the land which is not so well suited to agriculture as commonage, and then at the end of ten years, giving the right to the commonage to those people who held the agricultural lots. We found that plan work very well, and in that way we settled these Scotch and German immigrants. I think they have all since bought up the commonage.

515. Where would the capital come from?—That is the difficulty.

516. That is a vital difficulty?—Yes, you will not get the Government to do anything. The only hope is perhaps that some of these millionaires may do something. For example, Sir Percy Fitzpatrick is carrying out a scheme in connection with a syndicate for cutting up land on the Sundays River and giving it out to settlers. But there he has to irrigate. Here, there is no necessity for irrigation. I have never lost a crop through want of moisture, though I have lost some through too much water.

517. There is not the population necessary to attain the ends you consider so desirable, and you do not see how it is to be overcome because of the difficulty of providing the capital?—Yes.

518. I think you said also that the farms which have been taken up lately are largely occupied by people retiring from business?—Yes.

519. That is not the class, is it, that you would expect to plunge into very vigorous agricultural operations? They are generally elderly people who require rest, are they not?—Yes, to a certain extent. I think the tendency is rather to overdo it. I think they try too much farming.

520. And they are rather apt to fail—lacking previous experience?—Yes.

521. Therefore, you can hardly look upon them as serious and *bonâ fide* farmers—persons who are seeking rest in the evening of life?—Yes. But these people generally settle in the neighbourhood of the town, and go in for dairy farming and supplying the town with milk.

522. There is a difference between a man aged 60 at the end of his business career and a young man who takes to farming as a trade?—Yes.

523. You spoke of the top price of land as 3*l.* an acre?—Yes.

524. Does much of it come into the market?—No, not very much.

525. What class of land is it—deep loam?—The district varies very much. In some parts it is a black loam, 8 or 10 miles away from the coast on the ridges, of about 2 feet in depth. Generally speaking, the land between the valleys is rather poor, and only suitable for grazing, but in the valleys there is plenty of alluvial soil, which is very rich.

526. Are you speaking of ground that can be purchased for 3*l.* an acre?—I am speaking of the whole thing. A farm of, say, 1,000 acres may have 100 to 200 acres of good agricultural land, and the rest would be grazing land.

527. What would the average price be?—About 3*l.* an acre.

528. I thought you said that was the top price?—I am told that you cannot buy land at all under 3*l.* an acre now.

529. What you really think is that the sort of farming which is available here is a kind which would be suitable, for instance, for Indian officers at the end of their service—the man with some little capital who wants to take up farming for a livelihood?—Yes.

530. **(Mr. Campbell.)** In regard to the farms in this district: you gave your estimate, I think, of a standard farm as 500 acres, and I think you said it is the retired tradesman who takes them up?—I said that no man ought to be allowed, if it could be done, to have more than 500 acres. The majority of our farmers who have 2,000 acres have neither the capital nor the labour to develop the farm.

531. Do you think there should be legislation with a view to cutting up these large farms?—It is a difficult thing to say that. If I were an autocrat and governed the country as I liked, I might make a law to that effect, but as things are at present I am afraid we cannot.

532. Do you think that legislation, provided it could be carried out, would be valuable?—Yes, undoubtedly.

533. On a farm of 500 acres I think you said that mixed farming could be carried on?—Yes. You would have to keep a certain amount of cattle, and go in for agriculture to a certain extent.

534. That is, cattle and sheep mixed with wheat-growing, for instance?—No, wheat won't grow here.

535. What will grow?—Maize, cotton, beans, and a variety of things like that, and fruit, of course. It is a splendid district for tropical fruit—bananas, custard apples, mangoes, and oranges.

536. Where maize is grown the pig ought to do well?—Yes.

537. To carry on mixed farming like that on 500 acres of land—which, I presume, is the land valued at 3*l.* per acre—a man would need to do practically the most of the work himself, would he not?—No.

538. Would he be able to employ labour?—Yes.

539. Profitably?—Yes. There is a great deal of difference between myself and the bulk of the farmers in this district in regard to labour. I have never had the slightest difficulty in getting all the labour I wanted. Many farmers say that they cannot get labour, but if a farmer once gets a bad name as a master it is impossible for him to get labour.

540. Could a man, unless he had independent means to some extent, make a living on a farm of that size and value without doing a large amount of the manual work himself?—It would be much better to do the manual work himself, and the really good farmer always does. The Kaffir works infinitely better when the white man works with him.

541. Is manual work on farms the rule in this district—by white people?—Yes, though not so much by the large farmers.

542. They do cultivation work?—Yes.

543. Is much machinery used in the cultivation of maize, for the cultivation of the plant and cutting it, or is it all practically hand work?—Up till recently there has been very little machinery used, but now they are going in very extensively for machinery. Up till recently, manual labour was so cheap that it would hardly pay to use machinery. Up till the last few years you could get Kaffirs for 10*s.* a month, with mealies and milk, but now wages are rising.

544. The higher wages demanded by the native is causing the introduction of machinery?—Yes.

545. Is that going to be a continuing condition?—Yes.

546. The rise in wages will go on?—I am afraid so.

547. In reply to Sir Rider Haggard, you spoke of settling immigrants on the land, and you spoke of acquiring land and dividing it up. Do you mean the compulsory re-purchase of land by the Government?—No, I do not think there is any chance of getting that land. But I mean in the same way as Sir Abe Bailey bought his farms in the Colesberg district—buying up a block of farms as he got the opportunity—and giving perhaps a trifle over the market price.

548. Do you think that land bought at something over the market price—a large area—would pay when cut up into small settlements?—Yes, I think so.

549. Because the tendency is for large areas to be held at a better price than small farms?—No. Where you can get the European family to live on a farm of 50 acres by intensive cultivation they will make that land infinitely more valuable and enable them to pay for it.

550. Are there estates large enough in this district to make it possible and worth while to cut them up for a number of families?—Oh, yes; if you bought a farm of 2,000 acres you could put 10 or 12 families on it without any difficulty.

551. Do you contemplate doing the whole of the

East London, 16 *March* 1914.] Major-Gen. Sir E. Yewd Brabant, K.C.B., C.M.G. [*Migration, Land Settlement, and Irrigation.*

work by private enterprise?—It is the only way of doing it, as far as I can see.

552. **(Chairman.)** In regard to native labour, do you say you have always had a plentiful supply?—I have, personally.

553. What do you attribute that to?—To my getting a good name.

554. How do you get a good name?—By paying regularly and paying the top current prices for labour in the district, and also by treating them with a little sympathy. I have found by experience that one has to put oneself in their places sometimes.

555. In regard to the natives you have working for you; do they live on the land?—As a rule.

556. With their families?—Yes.

557. Has that a great influence with them in inducing them to stay?—Yes. As a general rule you give them about two acres which their wives cultivate for mealies for their own consumption. And on a large farm they generally allow them to run eight or 10 cattle of their own.

558. What is your view generally of the native labour question here, where the labour is wanted in large quantities?—You would have to pay a high price for it. But that you can get it is evidenced by the mines, where they have 250,000 natives. We have immense reserves of native labour in the Transkei. If you offer a sufficiently high price you can get it.

559. Then, the current rate not being sufficient to bring them out, you think a higher rate might be?—Yes.

560. It is the ordinary question of supply and demand?—Entirely. A large number of men are employed on the wharves here in handling goods, and I believe there is no difficulty in getting them. I do not know what the price is, but nothing very high. And I am told by captains who come here that their work compares very well with that of the London dockers, man for man.

561. Your remedy for the deficiency of labour is to bring more out by paying a higher rate?—Yes.

562. Has the possibility of taking his family with him a great influence in inducing the native to come away from his kraal?—Yes.

563. You said something about the example of the white man working with his natives. The view is sometimes taken that it demoralises both of them?—No, that is absolute nonsense. When I began, my sons worked with the natives. My sons were all strong men, and they said it was just as much as they could do to keep ahead.

564. And their working with them made them work better?—Yes. And I may give another instance. When this railway was first built, they sent out some English navvies. As you know, that is a strong class of men, and they acknowledged that it was just as much as they could do to keep up with the natives. Now that kind of work is the best that he is suited for. He is not so good where deftness of fingers is required.

565. But is it not the case where you get whites and natives working together, that after a short time the white does not do any manual work?—No, I do not think so. I know a great many farmers in this district who always work with their men and they are not demoralised.

566. You spoke of Kaffir wages having risen: can you state from your own experience to what extent they have risen in the last twenty or thirty years?—It depends on whether you are near the town or further away. Near the town, we are paying now from 1*l.* to 30*s.* a month with food.

567. How much do you calculate the food is worth?—About 3*d.* or 4*d.* a day—that is mealies and milk. That is outdoor workers. Of course, the indoor servant or groom would come out differently. But when you get further away from the town, say 20 miles, you would pay 12*s.* a month.

568. That compares in what manner with the wages paid twenty or thirty years ago?—It is about double. You can get Kaffir women now for 9*d.* a day without food for cotton-picking, or any work of that kind.

569. Is the work of the Kaffir women of a high quality?—No. They require a great deal of looking after and constant watching.

570. Well looked after, do they get through their work well?—Yes.

571. You spoke of retired officers and Civil Servants coming out here and farming. What capital is required?—It depends entirely on the size of the farm. It would not require much capital if a man was satisfied with a small farm.

572. What size of farm is in your mind?—Well, I should say from 300 to 500 acres. That would cost about 1,000*l.* to buy it.

573. How much to stock it and so forth?—I should advise a man of that kind not to begin on too large a scale. The smaller the scale the better, because he will have to pay for his experience. That is the great fault in this country with our young Colonial farmers. They begin on too large a scale, and if they have a bit of bad luck at the beginning they are done for. If they would only begin on a small scale and work up it would be a different matter. The men who have made fortunes in this country are those who started with almost nothing. I have now in my mind a young fellow who started about five years ago. He was simply a manager on a farm, and was allowed to cultivate for himself and so on. Well, the farm is being sold now, and he is giving it up, but he has cleared 1,500*l.* of his own money, made entirely by crops and a few head of cattle. He had absolutely no capital to start with.

574. You spoke of agricultural machinery being brought in owing to the rise in the price of labour. Do you get your machinery in fairly cheaply?—I could not say. I do not know the price. I should say we paid rather dearly for it as compared with the price in America to-day.

575. **(Sir Rider Haggard.)** When you said in answer to the Chairman that you approved of the white man working with the native, you were referring to the master working with his men?—Yes.

576. You were not referring to white and black working shoulder to shoulder?—No.

577. Has land risen very much in price during the last twenty-five years?—Yes. I bought a farm forty-four years ago for which I gave 4*s.* 6*d.* an acre, and I sold it the other day at 2*l.* 10*s.*

578. In those days the country was almost wild veldt?—Yes, and the country had a bad name about here.

579. Unhealthy?—No, stock did not do, and people would have nothing to do with agriculture. Sheep farming was looked upon as the only pursuit for people out here.

Kimberley, Wednesday, 18th March 1914.

Mr. Arnold Wilson Wall, Manager of Messrs. Stewarts and Lloyds (South Africa), Ltd., called and examined.

(*For the evidence of this witness on "Bills of Lading," see p* 88.)

580. **(Chairman.)** You are, I understand, interested in the pipe trade?—Yes, I am.

581. And you appear to give evidence in regard to irrigation from the point of view of the pipe trade?—Yes. I can only speak in general terms. I should say in the Kimberley district in the past two or three years irrigation has gone ahead by leaps and bounds. We have three rivers—the Vaal, the Orange, and the

Modder, and I should think that within a radius of 150 miles within the past three years something like between 70 and 80 suction-gas engine plants—pumping plants—fairly big schemes—have been put down. I may specially mention that the plant that my firm put down at Hopetown, for a syndicate of farmers there, has been very successful. It was absolutely bare veldt when they started. I wrote to them the other day saying I proposed to give some evidence before this Commission and asking them for particulars of their scheme. The secretary replied:—"In reference to our "irrigation scheme, and the pumping plant installed "by Stewarts and Lloyds, this plant was completed "last May. We have had this season a very successful crop of oats and wheat. Our lucerne fields are "doing well. Altogether we have 80 acres of lucerne "and 35 morgen of oats and wheat. The yield was "good and the crops are of splendid quality. We "find our apple trees do exceedingly well on this soil, "and a large industry could be established here in "growing apples for cider and light wines."

582. You see very great possibilities in the direction of irrigation?—Yes, undoubtedly.

583. In the direction of numerous small schemes?—Yes.

584. Or do you see large schemes too?—I should say in this part of the country you must have large schemes.

585. Which involve co-operation?—Yes, in this instance. I think there are about thirty of them who combined together and leased a piece of land from the Municipality of Hopetown, and I think they have a capital of something like 3,000*l*. The scheme I put down for them cost a little over 1,000*l*., but I do not think there is much chance of any schemes for lesser amounts to make it a paying proposition.

586. **(Mr. Campbell.)** Have you any knowledge of irrigation work—have you been anywhere where the schemes have been successfully carried out?—Yes.

587. **(Chairman.)** You are responsible for schemes yourself?—Yes.

588. **(Mr. Campbell.)** Those are small irrigation schemes by individual farmers that you speak of?—Yes.

589. What do you call a big scheme here? What area of country would you calculate to cover in a big scheme?—Oh, well, that is very difficult to answer. You could irrigate hundreds of morgen in some places for a comparatively small sum, while in other cases you could only irrigate 200 morgen for a very much larger sum. It would depend on the lay of the country.

590. In reply to the Chairman, you spoke of pumping plants having been erected?—Yes.

591. As a matter of fact, successful schemes hitherto in this country have been flooding schemes have they not?—Yes, by gravitation.

592. It is simply flooding the river over the adjoining land?—Yes.

593. There has been no very great or successful attempt to conserve water and distribute it by channels over the land?—Yes. There is a very successful attempt at Douglas, fifty miles from here. It is a Government scheme. They dug a furrow and brought the water out of the river, and distributed it over the land by gravity.

594. Is that doing well?—Very well indeed.

595. What is the name of the scheme?—The Douglas scheme.

596–7. Cultivation is being carried out under that scheme?—Yes.

598. **(Sir Jan Langerman.)** Who would benefit by the Hopetown scheme?—A good many people benefit. The whole town benefits.

599. Private owners?—Yes—it was a syndicate which was formed.

600. The Government undertook the scheme in the interests of private owners?—As regards that scheme, the Government did not have anything to do with it at all.

601. Who then?—It was a syndicate of farmers themselves.

602. Why did you mention that one?—I thought the Commission were desirous to know what was being done in this district.

603. Would you advocate that the Government should undertake schemes of that sort?—Yes.

604. And you think that a large population for settlement purposes could be put on the land?—Yes; I think so.

605. What could be grown there?—Those people are growing everything practically—oats, wheat, lucerne, and fruit.

606. This refers to what river?—The Orange River.

607. You think a large settlement could be formed?—Yes, I feel convinced of it.

608. You think there is much room here for that purpose?—Yes.

609. What area do you think could be brought under cultivation in the Hopetown District?—Hundreds of morgen. I could not give you the exact figures.

610. You can grow all the cereals that we want then, really?—Yes.

611. **(Sir Rider Haggard.)** I want you to tell us a little more about the Hopetown scheme: how far is that from here?—A little more than seventy miles.

612. What is the extent of the area irrigated?—Roughly, I think, about 600 acres.

613. Who are the owners?—A syndicate of local gentlemen in Hopetown. One is a bank manager, another an attorney, another a storekeeper, and the rest are farmers.

614. What is the capital of this syndicate?—I think 3,000*l*.

615. What was the prime cost of the land?—They did not buy it. They leased it from the Municipality for twenty years.

616. Are they working it at their own expense on a twenty years lease?—Yes.

617. What would be the value of such land in its raw state first of all?—I should say ten shillings an acre.

618. And what would be its value when irrigated?—That is problematical. But for myself I think it would be worth anything up to 50*l*. an acre.

619. And at the end of twenty years they have to make a present to the Hopetown Municipality of the difference between 10*s*. and 50*l*.?—That is so.

620. What will it grow there?—Everything practically.

621. Fruit?—Yes.

622. What is the rainfall?—I think the average is the same as Kimberley, which for the last five years would be from 12 to 15 inches per annum.

623. What is the depth of soil?—It varies. In some places it is 20 to 30 feet and in other places less.

624. Has it the same characteristics as the district of Prieska?—No.

625. In what way does it differ?—I cannot explain that, because I am not an agriculturist, but I know it is different.

626. How long have they been cultivating there?—About two years.

627. They are doing well?—Yes.

628. Is there much more of such land?—Quite a lot; hundreds of morgen.

629. Or thousands?—Thousands. It is boundless.

630. In fact, a huge area which could be brought under irrigation?—Yes.

631. Would there be any trouble, legally or otherwise, in getting the water for that irrigation?—As far as I know I do not think so. But, of course, it is a difficult matter in regard to these riparian rights. Still, it is not insurmountable.

632. Supposing people put their money into it, they might be brought to a full stop by those who have the rights refusing to allow them the water?—No, I think not.

633. You suffer from drought in these parts?—Yes, severely.

634. Does it not suggest itself to you that if you have these conditions of which you have spoken, it might be well worth while to follow up these irrigation schemes?—Yes.

635. Is that being done with the exception of this one?—Yes, quite a lot of big schemes are in hand.

636. Are they in operation?—Yes, all in operation.

637. And you say there are many thousands of morgen more which might be put under water?—Yes, undoubtedly.

Mr. W. H. Carter, called and examined.

638. **(Chairman.)** You have a considerable knowledge of irrigation from the farmers' point of view?—Yes, we have a small scheme at work.

639. Have you prepared a note for the Commission?—I am sorry to say I have not, but I have the different details here.

640. Will you give us the essential heads, we will not go into details?—From the junction of the Riet river to the Vaal river is a distance of about 45 miles. On that 45 miles there are about 19,000 acres of land that can be developed by irrigation at the present time. There are about 2,000 acres of land already developed. And then, again, along the Vaal river to the junction with the Orange river, another 40 miles, there is a further large quantity of land which can be put under irrigation.

641–2. Can you give us the figures?—I should say it is about 10,000 acres. At present, there are about 2,000 acres under irrigation by means of different schemes, and the farmers grow lucerne forage, and down at Douglas there is a lot of fruit grown. But the difficulty is in getting that produce to the market. We are about 70 miles from Kimberley, and it is a bad road. We have no railway connection. If we had railway connection, we should grow any amount of stuff, because the soil is from 30 to 40 feet deep, fine alluvial soil. I was down there last week and saw peaches nearly the size of my hand and apples also. It takes about five or six days to make the journey by ox-waggon, so to bring the fruit into town is impossible. There is one thing I might mention: a great amount of this land is held by farmers who are not of a very progressive nature and they have not sufficient means themselves to carry out schemes, because the river lies down below the surface of the ground, a distance of about 40 feet and gravitation schemes would have to be worked after weirs had been erected. My contention is that if the Government would only make a railway for use along the Riet river we should be able to bring produce into Kimberley market, and send it to Johannesburg and other parts of South Africa. Any amount of lucerne forage, fruit and vegetables of all descriptions can be easily grown there. For instance, in regard to the Douglas scheme that has been at work for the last twenty years, the people there are in very poor circumstances and they cannot dispose of their products. I have been there sometimes and could not buy forage. That gravitation scheme at Douglas has cost the Government over 40,000*l.* Lately the Government has bought another three farms below Douglas, called the Bucklands Estate, and are extending the gravitation scheme. They will have about 2,000 acres that can be put under cultivation but unless we have a railway it is useless.

643. Are there any other points?—As regards the natural resources, as I mentioned, the Riet river is a matter of about 40 feet below the surface of the ground and you would have to consider the building of weirs to raise the level of that water. There is no doubt, then, that gravitation schemes could be utilised and the flood waters could be utilised at certain periods of the year. At the present time the flood water is coming over our weir about 18 inches deep, above the crest of the weir. Our weir is about 480 feet long. If other weirs were built, all that water could be conserved and used on the land, and in cases of drought like this it would be of immense benefit.

644. **(Mr. Sinclair.)** As soon as the Government is in a position to expend large sums of money on railways and irrigation schemes, where the irrigation schemes are too large for private enterprise, a considerable settlement will take place and there will be greater production in the areas to which you have referred?—Yes, certainly.

645. You realise, I take it, that a large expenditure of that kind must go comparatively slowly; everything cannot be done at once?—Certainly.

646. The development of every new country by railways and other public works must be gradual?—Yes.

647. Can you tell us what has already been done by the Government for irrigation purposes in the areas with which you are familiar?—What the Government has done is this—I think they purchased this property of the Bucklands estate and paid 18,000*l.*, and made a furrow from the Vaal river; I believe that cost about 30,000*l.* They erected a weir and sold the land. They sold the land to different people, about 2,000 morgen, with the option of paying up in a certain number of years. When that land was put up for sale many people rushed in, thinking they were going to make a fortune. In some instances they paid about 200*l.* a morgen for the land. The people who bought this land were poor and could not pay and it has consequently reverted back to the Government and the Government has had to re-sell it to other people.

648. What does that point to, that the land would not bear the expenditure that had been made upon it?—It would bear the expenditure, but I must admit that the men who bought it did not know exactly how to work it, they had practically to gain their experience of irrigation; they went in for fruit trees and produce of that kind and when the fruit came to perfection they had no means of disposing of it.

649. But I take it that they were the highest bidders for the land when it was put up?—Yes.

650. You think that part of the failure was due to the fact that they were unsuitable settlers?—In many cases. My argument is that this irrigation work requires men who have had experience in irrigation with energetic dispositions. Now, many of the farmers in that neighbourhood are not of that kind, they have gone in for ostriches—I do not know how this slump in feathers will affect them. But we have gone in for lucerne forage, and mangolds principally to feed our own stock, we have not disposed of anything, but it means that we have to keep about 200 to 250 oxen to carry this stuff to our different farms, whereas if we had a railway we should not require those oxen.

651. No doubt if you had a railway it would bring the produce nearer to market, but to go back to this scheme of which you tell us, do you think that the price that was paid by those settlers was too high, supposing they had been fitted for the work?—Yes, it was far too high, it was undeveloped land, it was not planted, there were no furrows, in fact it was bare veldt.

652. Are you speaking of the land that was sold by the Government in Douglas?—Yes.

653. You think that the price was far too high?—Yes.

654. Would a lower price have justified the expenditure; in other words you can spend on land by irrigating it more than it is worth?—Yes.

655. In regard to the land on which the Government made its experiments, was much money spent on it?—I think so. For instance, very often private schemes are put up at less cost than Government schemes, there are so many overseers to be paid.

656. Do you suggest, then, that the scheme was extravagantly carried out?—They had various difficulties to contend with; I suppose they had washaways that cost a large amount of money; and also in connection with their main furrow, I think, they had to compensate some of the adjoining farmers for passing through their land.

657. I take it that had to be done?—Yes.

658. You are advocating, on the one hand, that the Government should do more in developing schemes for irrigation?—Yes, they should build weirs and also expropriate a lot of this land lying along the river.

The Government has practically no land along the river at all.

659. You advocate that the Government should do this, in view of the particular instances you have put before us which resulted so unsatisfactorily?—That is a matter which happened about twenty years ago and the Government has profited a good deal by experience since then.

660. They have gone in for many schemes which have been successfully carried out?—Yes.

661. As a matter of fact, is not the Government at the present time having systematic surveys carried out throughout the Union as to the directions in which irrigation works can be carried out?—Yes.

662. But that is not being carried on, perhaps, as quickly as you suggest it should be?—Yes

663. That is really the point of your complaint, if it be a complaint?—Yes.

664. **(Mr. Garnett.)** Have I rightly understood you—your opinion is that in these remote regions that are suitable for irrigation, unless there are railways made to bring the produce from those places to market, the money is simply wasted?—Yes.

665. The general conclusion is that, *pari passu* with a construction of irrigation works, railway construction into the area so irrigated should proceed?—Yes, it is the same as in America, they take the railway there and the population follows; here we want the population first.

666. **(Sir Jan Langerman.)** In regard to this scheme which you mentioned just now and which was so disastrous, you say that happened twenty years ago?—Yes, it is still being carried on, but I believe to-day it is more successful, because the people who originally had possession of the erven have gone out and new-comers have taken up the land.

667. So you do not quote that as a typical case of Government incapacity to carry out such schemes?—No.

668. You think to-day that with their experience they would do it better?—Yes.

669. Are the farms which the Government bought near the railway line at all?—No, it is a matter of about 70 miles from the railway; Belmont is the nearest railway station.

670. What induced them to do that, did they have an idea of building a railway at that time?—Yes, we have been trying for years to get a railway made to Douglas. In the old Cape Parliament a sum of money was voted to build a railway from Belmont to Douglas, but the war intervened, and for different reasons it has not been proceeded with.

671. On what basis did the Government dispose of the land?—They sold it outright.

672. The Government has no interest to-day?—Under the old scheme they sold the land outright, but under the new scheme it has not been put up for sale, the matter is still in abeyance; they are constructing a furrow to carry the water.

673. On what terms will they sell now?—I think they will sell it right out freehold, except that purchasers will have to pay a certain water-rate for the upkeep of the furrow.

674. You agree with the last witness that there is a large area for closer settlement?—Yes, provided you get the right class of settler and make railways to bring the stuff to market.

675. **(Mr. Bowring.)** I gather that you think that private irrigation schemes have been more successful as a whole than the Government schemes?—They have, up to the present.

676. And there have been a great many of them?—Yes.

677. Assisted by the Government?—Not that I know of; it has all been done by the people themselves, but Government will assist them, they will lend money at 3½ per cent. interest.

678. For approved schemes?—Yes; we have to submit our scheme, and then they send down a surveyor and engineer who pass their opinion on the scheme and help us to make out plans.

679. There is no reluctance on the part of the Government to provide money for approved schemes?—No.

680. Do you advocate private measures of that kind rather than Government schemes?—Well, in regard to large schemes it is too much for a farmer. Our schemes cost us practically 10,000*l*. Hundreds of farmers have perhaps 1,000*l*. or 2,000*l*., but they have not sufficient capital for a large scheme, and they have to get money from the Government. In regard to a scheme for the construction of a dam in the Vaal River, for instance, that would be impossible for a private individual, but if they had a dam in the Vaal River land could be irrigated 40 or 50 miles away and there would be enormous possibilities.

681. And the Government are better able to settle the private water rights than the individual or corporation I suppose?—Yes, I suppose so, because as a private individual you have to pay for a servitude for an abutment to land your weir on your neighbour's property for the storage of the water.

681A. The Government, I suppose, makes concessions in such cases?—Yes, if there were Government land, but there is no Government land for irrigation purposes along the river that I know of.

681B. But you are rather inclined to think that private irrigation schemes are likely to be more successful than the Government?—The small schemes.

681C. But the larger schemes the Government must do?—Yes, the great thing, however, is for the Government to assist in building the railways or making better roads for the conveyance of our goods to market.

681D. **(Sir Rider Haggard.)** Lacking a railway, which is expensive, would not a good road and a few motor vehicles help you a great deal?—Yes, certainly they would.

681E. Is that beyond the possibilities of co-operative action?—It should not be, but I know the Divisional Council, which has to construct these roads, have so many roads in the district to look after that they have no money to build a good road through this district. In some parts you have to go through sand 9 to 10 inches thick.

681F. But with the large profit in sight do you not think that might be managed, not only here but in many other places where they are crying out for railways for which they will have to wait a generation?—We have tried, but the Divisional Council has no money to build the railways.

681G. But the individuals concerned in raising the produce might join together and form a mutual scheme and have some motor drays. I only throw this out as a suggestion. In regard to lucerne, have you a good market here and in Johannesburg for lucerne, hay, and green stuff?—I think there is a good market. People from Modder River will be better able to speak about that. We use our lucerne ourselves to feed the ostriches.

682. If you grew a great deal of lucerne on these irrigated lands you might get a handsome return?—Yes, but the cost of bringing it to market at present would be 1*s*. 3*d*. or 1*s*. 6*d*. per 100 lbs.

683. But I am suggesting that might be modified by a decent road and motors?—Yes.

684. Other witnesses have told us that there is a great deal of land that could be irrigated; is that land held up tight?—Yes, it is in the hands of private people.

685. Will they sell?—They will but the majority will ask a high rate per morgen; I know they want 5*l*. and 10*l*. a morgen. Mr. Wall said 10*s*. an acre.

686. Is it undeveloped land?—Yes, lying along the river.

687. Are they making any use of that land themselves?—No, it is practically simple farming.

688. Is it dry land?—Yes, you would have to instal suction gas engines to raise the water.

689. So it is rather a dog-in-the-manger policy on the part of these people?—Yes.

690. Have you any legislation in this country for breaking up big estates?—Not that I know of, I believe there is some in Natal.

691. You think that the real wealth of this country lies in agriculture and in the fruits of the soil?—Yes.

692. And there are plenty of fruits to be got if you only go the right way about it?—If you had the water. Our soil is magnificent.

693. You have lots of water in the rivers?—At certain times only.

694. A lot of water runs to waste?—Yes.

Mr. A. R. Radloff, Jr., called and examined.

(*For the evidence of this witness on "Animal and Agricultural Produce," see p.* 210.)

695. **(Chairman.)** You have something to tell us about artesian water?—That was a matter which was brought before me just before this meeting, and I am not able to give you very much information, exeept as far as my practical experience goes. Unfortunately, I happen to reside midway between the Vaal and Modder rivers, and we have had to depend on our supplies from artesian sources. We have gone in for irrigation on a small scale, but that is limited to the supply obtainable. I may mention that we have also gone in for a suction gas plant, whereby we convert the power into electricity, and we do all our pumping by that means. We have not been able to strike a strong stream yet, and therefore we are getting our supplies from three or four different points.

696. What depth do you get water at?—The depth ranges from 15 feet in one place to 203 in another.

697. And how plentiful is the supply at those depths?—At one point we struck a supply which gave us ten thousand gallons per hour for 6 hours by accumulating the water through the night, say, for 12 or 15 hours.

698. And the other sources?—Of course, the other sources have been mostly from boreholes and wells.

699. And how much do you get from them in 24 hours?—In regard to this main source I am speaking of, that would deliver us about 60,000 gallons daily.

700. And continuously?—Yes. But on account of not having our rainfall as in the past years, that supply has diminished very greatly, and at present we are in a very sore plight as far as this is concerned.

701. Has the drought affected all your subterraneous supplies?—Yes.

702. By lowering the level of the water?—Yes.

703. And by diminishing the amount?—By both. Because in one particular spot, when we originally started this scheme, from the levels we took then, we are now drawing our water fully twelve feet deeper than when we started, two years ago.

704. Generally speaking, what is the quality of the water?—Fit for stock.

705. For human beings also?—Yes.

706. For agriculture too?—Yes.

707. Always?—No. Sometimes you happen to strike certain underground streams which are somewhat saltish, and contain a great number of minerals. The water from one borehole that we are now using contains a large percentage of minerals and I suppose it is not more distant than four or five hundred yards from another source which is very good water.

708. Generally speaking, then, this water is used for watering stock on your land?—Yes, mostly stock, and we also divert a part for irrigation. This irrigation is very limited on account of the diminished underground supplies. We can only irrigate about three morgen, and on account of this drought we have even had to give up more than half of that.

709. What is your calculation of the cost of raising water from these depths, taking into account the cost of erecting the pumping machinery, and so on?—The cheapest cost of getting water is by wind power. Of course, you can utilise horse power and other means cheaper than suction gas plants.

710. What do you calculate that the water costs you per 10,000 gallons; can you form any estimate?—It would roughly come to 2*s*. 6*d*. per 10,000 gallons.

711. Are a large number of pumps being put down all over the country now?—Yes, mostly windmills. They are mostly put down by the poorer class of farmer, who cannot afford a big initial outlay.

712. Is their use extending largely and rapidly?—Yes. The farmers are gradually discarding the old ways and putting up windmills.

713. You can count on regular winds to give you the motive power?—Yes, we have plenty of wind.

714. **(Mr. Sinclair.)** Is the supply from those sources holding its own?—To a certain extent it has diminished, but there is still, I imagine, a tremendous supply at greater depths

715. You state, as I understand, that as your rainfall lessens the supply from these bore-holes lessens too?—Yes.

716. Very well, if there is an extension—a considerable extension—of trying to tap water under those conditions, if the supply is dependent on the rainfall must it not diminish also?—It is bound to. But my idea is that the underground water is supplemented by some underground sources of supply, and, of course, by drilling to a great depth you would naturally strike stronger streams.

717. Is there any theory as to the existence of water other than the rainfall source?—Of course, as regards the artesian sources, I may mention, for your information, that by drilling down lower we have got a better supply. We put down one particular hole, and when we got to a depth of 97 feet a small supply was struck, but fortunately the drill was able to proceed further, and when we came to 198 feet we struck what we would call almost a permanent supply, and that supply has not diminished; in fact, that supply rose to 70 feet from the surface from the 200 feet level.

718. You say that is not due to rainfall?—It is not altogether due to the rainfall.

719. Have any considerable experiments been made in boring for such water?—Not to any great extent.

720. Has the Government done anything in this locality in that direction?—Not in Griqualand West. In the past they have leased the drills to private owners at a certain rate, and they have had drilling done through that system, but I believe that system has been discarded, because private individuals could do their drilling cheaper than by the Government system. That was the experience of a neighbour of mine.

721. Do you think that the encouragement that has been given in regard to experiments that have been made in the past warrants extensive attempts to tap that water?—I think so. If we could only get certain drills to penetrate the dolomite. At present the drills we have cannot go through this, but they are getting out machines now which will go through it and thereby possibly open lower sources.

722. Who are importing those?—Private people.

723. **(Sir Jan Langerman.)** In regard to drilling, you say you find it cheaper to drill by private contract than through the Government?—Yes.

724. What do you pay the Government?—When the private drilling was done at ten shillings a foot the Government charged about twelve shillings.

725. What do you pay for your drilling?—It all depends on the conditions. Conditions have altered very much in the past. At present you have to find the fuel and water and the charges are from five shillings to six shillings a foot.

726. Is that a six inch drill?—Yes.

727. Can you get a drill freely for that?—Yes. The drilling is only carried on by private individuals.

728. Are there a lot of people about who do the drilling?—Yes. There are several private companies who do it, and that rate, I should mention, is for the first hundred feet. The deeper you go the higher the rate. From six shillings it goes to eight shillings for

the 100 to 200 feet level, and from 200 feet to 300 feet level it goes to ten shillings.

729. And after that it is ten shillings as deep as you go?—They do not go below three hundred feet. Experience shows that you usually strike a supply at 200 feet.

730. Do you know if any drilling has been done through the dolomite to see what is below that?—No, they have all stopped there as far as I know.

731. If we go through the dolomite we strike a large supply of water—that is our experience in the Transvaal. You do not know what is below the dolomite, not having gone through it?—No.

732. The Government to-day charge 4*l.* per day, I believe, whatever footage they may drill?—I am not aware of that. I do not know.

733. It depends on the soil they go through, of course, whether it would be profitable?—Yes.

ORANGE FREE STATE.

Bloemfontein, Friday, 20th March 1914.

Mr. GUSTAV BAUMANN, Government Land Surveyor, called and examined.

734. **(Chairman.)** Would you tell us your present occupation?—I am a Government Land Surveyor, and I have specially interested myself in irrigation in this Province.

735. Will you kindly tell the Commission the points regarding irrigation which you consider of interest?—Well, in my view, in the Free State irrigation has never been properly attempted yet. I have my own theories as to what should be done, but there has never been any real attempt, except in the case of the Koppies Settlement for the poor white, where they have made a storage dam, and in the case of a place on the Orange River near Aliwal North, where they pump the water by turbine, but otherwise irrigation has been attempted in a very small way only.

736. What do you consider to be the most profitable openings for irrigation—profitable to the country?—I do not quite understand. Irrigation, in every case, has proved profitable if the ground beneath the reservoir is of the proper kind.

737. I mean to say what kind of irrigation do you advocate?—Storm-water storage: there is no possibility of other irrigation in the Free State. We allow all our storm-water to run off now. We store a very very small percentage.

738. What is your average rainfall here?—It differs. I would not like to give any definite figures, but I would say that in the west it would go up to 16 inches per annum and in the east it would go to 22 or 24 inches. You can roughly divide the Free State into two parts on each side of the railway line. There is a small section in the east which has more rainfall than the western part. Those figures vary, of course.

739. And during the last three years it has been how much below the average?—I could not tell you. I have not taken any special observations, but we have had very dry years lately, especially the last.

740. Can you tell us whether there has been any previous period of prolonged drought?—There was a big drought in the country, as far as I can gather, in the year 1860. But the present one is far more severe, I think, or at any rate its effects have been felt more, possibly because the country is better stocked.

741. How do you suggest that this storage of storm-water should be carried out—by the Government, or by local associations, or by individual farmers?—The present system is to leave it to the individual farmer. The Government has no national policy of water storage. There are reasons for that. The storage of water by the individual is very laudable, of course, but it is not sufficient, and my suggestion is that it should be undertaken by the Government. That can, however, not occur until there is some law which gives the Government the right of compulsory purchase of land, because the land is held at present in the Free State by private people. The land has all practically been given away and there is little or no Crown land, and what there is is right in the flat districts, where irrigation is impossible. So that any storage dam that was erected would affect the private ownership of land. The land where the dam was constructed and also that under the furrow would be private property, and the moment that the Government undertook any big scheme the private man would immediately raise his price to an impossible figure, unless there was a law compelling him to sell by arbitration.

742. The proposal you put forward, then, is for the Government to expropriate land and carry out irrigation works and then to re-sell that land?—Yes.

743. And the increased price of the land would compensate for the irrigation works?—My scheme would be this, that the settlers or the purchasers of land would pay for the original price of the land plus the cost of the weirs and canals, and pay an annual sum for the upkeep of the works.

744. But now are there many cases where the Government can expropriate land at a fair valuation?—Yes.

745. And carry through the irrigation works you indicate and sell that land again without loss?—Certainly. If you look at the map you will see. The rainfall in the east is much more than in the west, and the land in the east is considerably dearer than it is in the west. It is a big undertaking, but if the water which periodically falls in the east and very regularly falls were to be stored anywhere to the eastern side of the western district, or dry portion of the western district, it could be gravitated to these dry portions, because the land slopes in that direction, and the ground in the western portion could be purchased cheaply and enormously increased in value, so that it would support an enormously larger population than it is doing at the present time.

746. **(Sir Jan Langerman.)** Suppose that the Government were to undertake large irrigation works in the Free State, is there room for it?—In what way?

747. I mean to say, are there facilities—natural physical facilities—for making large irrigation works?—Yes, I believe so. On the borders of the Free State you have the Vaal River, which is a perennial stream. Actual surveys have been made where fairly large irrigation schemes could be carried out. There are several other probable schemes that by inspection would seem to be suitable, where hills meet together and the stream passes between them, but these have not been investigated very closely.

748. Also on the Vaal River?—No, on the Orange River, for instance, and also the Caledon River.

749. But rivers within the Free State?—There are schemes, but they would not be as large as these big river schemes. I understand there are places on the Mud River where schemes are quite possible, and also a survey is now being made, and if the private owners agree, it will be carried through, to use the flood water there.

750. I understood you to say that it would be better if the Government left the private owner alone, and let him do his little schemes himself?—No, according to my opinion, it is not better. I think it is creating landlords.

751. Of course, the Government could not first of all

spend a lot of money for private owners unless it got a benefit too?—That is what I say. In the present position it is impossible for the Government to carry out big schemes until some law is made by which they can compulsorily purchase the ground that they want.

752. Leaving the question of compulsory purchase aside for the moment—because it would be rather hard to dispossess a man of his land if he is willing to pay a certain proportion of the cost of that irrigation scheme—would not a scheme like this be feasible:—If the Government saw a large area—say, half a dozen farms—which could be brought under irrigation, and were to build the works and take half of the land to recoup themselves for the cost of erection, the owners keeping the other half?—I really would not like to give an opinion on that because it would be tantamount to expropriating half the farm, and the present Irrigation Law, which is a fairly good law as far as it goes, gives the private owner the right to co-operate and build a weir. But it does not force the intervening owners to participate in the scheme unless they like to do so.

753. But should not they be compelled?—Yes, that would make the present law more perfect.

754. Because they are holding up large irrigation schemes?—Yes, if they were compelled to join it would be better.

755. So you think there are good schemes still awaiting closer settlement under irrigation as soon as irrigation works can be carried out?—Certainly, all over the country—large and small.

756. **(Sir Rider Haggard.)** When you talk of storing storm-water do you mean storm-water which is to be got in the rivers, or do you mean constructing dams?—No, not making dams. But the small dam is a storm water reservoir—it is a local storm-water reservoir.

757. But which have you in your mind chiefly?—The river.

758. You mean the water which at present runs to waste in tens of millions of gallons?—Yes.

759. You say it should be caught and held up?—Yes.

760. Supposing that were done and the water which now goes to waste were caught and held up, it would be sufficient to irrigate enormous areas, I suppose?—Certainly.

761. It would probably change the whole aspect of agriculture in this country?—Yes. I do not know whether you are aware that in the west the whole farming population depends on the underground supplies and those supplies are gradually sinking. To my personal knowledge, farms in the Luckhoff District, for instance, which have had orchards and vineyards and where fruit has been very plentiful, to-day are dried up, and the natural springs have failed. The whole district practically has had to be abandoned for agricultural farming because these springs have sunk and dried up. And this has been largely brought about by the denudation of the surface of the soil, and the water flowing off much faster from the surface of the ground than it did formerly.

762. That is due, is it not, to two reasons; one the destruction of bush scrub on the surface, perhaps by natives long ago, and the other to the fact that pathways have been made by man and beast which have turned themselves into water-courses?—Yes, the footpaths, the burning and trampling down of the grass and bush, and particularly by the construction of roads and railways. When these were made, no provision was made to collect the water and spread it over the ground again, and the railways have simply made storm-water furrows, along which the water runs into the dongas and so into the rivers and is all lost. The railways are the principal sinners in this respect.

763. I believe there is a school of opinion which believes that South Africa as a country is gradually desiccating, and even pretty rapidly?—Yes, I believe there is something in that.

764. Do you agree with that or not?—I have written about it for the last twenty years, and I am perfectly convinced that the Karroo is gradually encroaching upon the Free State—that it is coming eastward, and that the western districts have so dried up that, as I say, the natural surface springs are ceasing to flow. The east has so dried up that it is now becoming a farming proposition, whereas formerly it was almost too wet to farm there.

765. Then you do think there is a great deal in the theory that South Africa is desiccating?—I am convinced of it, from my own observations. My observations go back as far as 1879, when I started private work.

766. It makes the matter still more serious than it appears to be on the surface?—Yes.

767. It makes the conservation of water more urgent?—Yes, we must really conserve the water or else we shall soon be in a bad plight, and it will not be long before we will be quite unable to farm at all here. I may be pessimistic, but those are my views. I have studied these things and I believe I can prove it.

768. These underground waters: do they come from the skies or from below?—I do not know their origin, but they are caused by intrusive dykes coming through the horizontal rock. The water accumulates against the walls of the dykes. The Boers know them as water veins. As the water percolates from the surface it collects against the impervious face of these dykes, and when these are filled up it causes a spring or fountain.

769. What is the reason for their becoming exhausted?—They have accumulated from time immemorial, and the water naturally made only small cracks in the walls. The water lost in this way was replaced by the rainfall percolating to these underground cisterns. When the country was grass and bush-covered the rainfall used to replenish these springs as fast as the water was tapped, but now the rainfall is allowed to run off the surface of the ground and away to the sea. All over the country they have sunk boreholes and extracted more and more water from the underground system, and they have taken out more than is being supplied from the surface. That seems to be the explanation of the deficiency.

770. Then you fear that the fate of South Africa may ultimately be the same as that which overtook Tripoli and those places on the north coast of Africa in the Roman days?—I am not going to talk about South Africa, I am confining my remarks to the Free State.

771. Do you advocate a measure of compulsory purchase?—I think that is the only way that the Government can possibly make any big irrigation works here, because if they have to purchase the ground at the value which the seller places on it they will never be able to do anything.

772. And that purchase, I suppose, you would advocate should be carried through by means of reasonable valuation by competent and impartial persons?—We have a compulsory expropriation law for the railways. Everything outside of 100 feet has to be expropriated, and if the seller is dissatisfied with the amount tendered him, he can appeal to the arbitration court.

773. And that method, you suggest, should be followed in the case of the compulsory purchase of land for water storage schemes?—Yes.

774. **(Mr. Campbell.)** Does not the Land Settlement Act of 1912 give power to co-operators who wish to carry out an irrigation scheme, provided there is a sufficient majority of them, to compel intervening and unwilling owners to take part in the scheme?—That is the Irrigation Act to which you are now referring, not the Land Settlement Act. That gives them the right of passage, the right of abutment where they have a joint river front. But it does not give them the right to compel anyone to come in if he is unwilling to do so. But he can come in after a certain period. There is no compulsion—it must be voluntary co-operation.

775. Supposing that Act were amended in the direction of giving power to a sufficient majority of co-operators to compel any unwilling and intervening owners to join them in co-operative schemes and giving the majority power to rate the unwilling owner just as they have to rate themselves, would that take the place of the compulsory purchase of land?—It would be an enormous step in advance of the present system, but it

would not put it in the power of the Government to carry out large irrigation works.

776. We have heard a good deal of Government irrigation works in other parts of South Africa—do you know anything of the works that have been carried out by Government?—I know the Van Wyk's Vlei scheme, which was a failure on account of the ground below the water not being examined properly. I know nothing of any other big scheme.

777. Do you know of any Government irrigation scheme carried out in the Union that has been a success?—No, except the Koppies scheme: that might be a success. There is only Kakamas: that is really a Church scheme—that has been a success on the Orange River.

778. There are a number of private co-operative schemes that have been a success?—Yes, but I do not know of any big Government scheme that has been carried out, except Van Wyk's Vlei.

779. Would that evidence not rather point to the fact that at present the carrying out of the work by private co-operators would be preferable to Government action? I do not mean to say, of course, as a general principle applied over every country—but does it not seem that owing to some peculiarity in the temperament of the local landowner it is probable that the private co-operative scheme would succeed better?—If you ask me whether under the present régime, which is dominated by the big landowner, it is possible to pass a law to expropriate the land, I say, "No, it is not possible." As long as the big landowner has the ruling power in the Government he will naturally never allow any encroachment on what he deems his rights.

780. Under those circumstances, do you not think it would be better to proceed along the line of least resistance, and accomplish what you can that way?—Perhaps so; it would seem the only way.

781. Rather than setting up an ideal which you cannot for the present attain?—Certainly,—there is no option.

782. At any rate, you would say this, that the giving of the power to majorities under co-operative schemes to rate the unwilling and intervening landowner would be a very great step forward?—Yes.

783. Speaking about the irrigation schemes that you know of as possible in the Free State, could you give the Commission any idea of the area that would be covered by making use of them?—No, it depends on the length of the furrow.

784. You cannot give any figures?—No.

785. With respect to the carrying out of the schemes themselves: when you speak of making use of storm water—do you mean the permanent conservation of water which would afterwards be used on the land when required by means of channels?—Yes.

786. You do not mean what appears to me to be somewhat a "happy-go-lucky" method of irrigation carried out elsewhere, by which the storm-water is just simply diverted on to the land by means of a temporary and rather flimsy sort of earthen dam?—No; I mean storm-water conserved with the purpose of using it economically, and, as far as I know, the economical use of storm-water in South Africa is almost an unknown quantity.

787. What you are advocating now is the permanent conservation of water and the use of that water after it has been permanently conserved as it is required on the land?—Yes.

788. You are not proposing the Assouan Dam principle of simply flooding the land when the river comes down?—No. Failing that, that is the only way the private individual can make use of it—it is also cheaper.

789. Is the country round here in the Free State good holding ground, when you have in your mind the carrying out of such work as that? What I mean is—does the physical formation of the country lend itself to the permanent conservation of water?—Yes, in parts certainly, because the ordinary little farm dam would prove that, where the water is retained as in a spoon.

790. You have some definite schemes in your mind's eye?—Yes.

791. In those definite schemes I suppose you recognise that you can carry out irrigation anywhere, but the question of carrying out payable irrigation is quite another matter?—Yes. Quite so.

792. What would be the value of land made ready for irrigation in the largest of these schemes you are speaking of?—They usually reckon that land—good deep land—is worth up to 50*l.* a morgen. That is about 25*l.* an acre. But I do not put that value on it myself. They reckon it is worth that before it has been put under a permanent crop, but I think it is from 20*l.* to 30*l.*—that would be the value per morgen.

793. What class of produce do you think could be grown? Would it be fruit or lucerne?—It all depends what your market demands. Soft fruit, for instance, I do not think would be a profitable crop to grow, because it has to travel so far by rail. But apples can be grown here and lucerne certainly in most parts, especially in the west. Every other crop grows, except tropical crops.

794. Are the schemes you have in mind so large that they would require to be carried out by some big authority, like the Government?—Yes, they are much too large for private individuals unless they co-operated, and even then they would want large capital, and there must be no one standing back.

795. **(Mr. Garnett.)** I suppose your scheme is to permanently dam up the rivers and store the storm-water?—Yes.

796. These dams would have to be placed at suitable spots, would they not, or they would close the drifts?—They might, but that is not a thing that would in any way inconvenience anyone. You could make a causeway or build a bridge if necessary.

797. The suggestion was that an almost necessary preliminary to any large scheme for damming the rivers was for suitable bridges to be erected at certain places to take the place of the drifts that would be closed?—I do not think that is always necessary, because the railway line runs right through the country, and in between the rivers most of the farmers can go to the railway without crossing.

798. But there would be places?—Yes, in certain places it may be necessary.

799. There was another consideration placed before us in evidence, and it was this: that while there are enormous areas suitable for irrigation, some of them are quite remote from railway communication, or speedy communication with the large consuming centres?—Yes.

800. And the argument was that it was not much use irrigating those unless *pari passu* railway communication was made into those districts?—That is not very much the case in the Free State except in the Hoopstad District.

801. But as a general proposition in South Africa?—It would probably apply in parts of South Africa.

802. **(Chairman.)** You say that the western portion of the Province is getting drier?—Both the western and eastern portions, but the effect is felt more in the west because of the lower rainfall.

803. What effect does that have on the value of land?—Land has risen in value all the same on account of the demand being greater and there being no land obtainable, but it is not as good a farming proposition to-day as it was thirty or forty years ago.

NATAL.

Durban, Monday, 23rd March 1914.

Mr. Maurice Smethurst Evans, C.M.G., called and examined.

(*For the evidence of this witness on "Mining," see p. 24 of* [*Cd.* 7707].)

804. **(Chairman.)** We are indebted to you for having prepared this memorandum, and I think that the most convenient course would be for you to read it?—I must explain, in the first place, that when I prepared this statement I did not know how far your terms of reference would include points such as I have raised here, but I felt that if you were going to deal with production in this country, either agricultural, or manufacturing, or mining, this question of labour is one that goes to the root of the whole question.

805. It is a matter for you to decide whether you prefer to read the memorandum or explain your views to the Commission verbally?—The memorandum will be valuable for the members of the Commission to read if they like afterwards, and if I could be allowed to put my views in a different form now, I think it would be the better way.

The following is the memorandum prepared by the witness:—

It will be impossible for the members of the Dominions Royal Commission to fully grasp the economic conditions of the Union of South Africa without understanding and taking into the fullest consideration the peculiar racial and social conditions of the country. Any comparison of our present economic condition and the future of the Union with the other great self-governing Colonies would be entirely misleading without such knowledge, and much of the present confusion of ideas is due to a lack of comprehension of these conditions. It is also necessary to note that, although every section of the Union differs from Australia, Canada, and New Zealand, conditions here are not uniform. In the Western Province of the Cape the social and, consequently, the economic position is quite different to that obtaining in Natal or the Transvaal. There we find a large coloured population of mixed blood undertaking practically all the manual labour and much of the skilled work both in town and country, and taking the position here held by the aboriginal native and the Asiatic immigrant. As I take it that the Commissioners have familiarised themselves with the position in that Province, I do not intend to dwell upon it, but will confine my remarks to that section of South Africa served commercially by the Port of Durban and including Natal, Griqualand East, the Eastern Free State, and the greater portion of the Transvaal, including the Witwatersrand.

The outstanding social and economic feature of this section is that the population is predominantly of the native or Bantu race, and that almost all of the manual and menial labour is done by them; of secondary but great moment, that there is in Natal an Indian population outnumbering the whites by about 50 per cent. In commercial life, in agriculture, manufactures, mining, and transport, this factor is the feature which must be remembered and investigated before correct conclusions and comparisons are possible.

In commercial pursuits the native fills the simple but essential rôle of customer, and the trade done with them is large and lucrative. There are practically no natives engaged in business. The wholesale trade is for the greater part in the hands of Europeans, though Indian wholesale houses importing direct on a smaller scale are numerous. The larger part of the retail trade with natives is done by Mahomedans from Bombay, who must be distinguished from the Indian coolie and his descendants. These Bombay storekeepers freely obtain credit from European houses.

In general agriculture the native, together with comparatively few Indians, is the labourer. With the exception of a few Germans and fewer Norwegians, no white man undertakes the actual work of the farm. Wages are low: where the native lives on the farm an able-bodied man will receive 10*s.* to 20*s.* per month with simple food, when not resident 10*s.* to 30*s.* Compared with Australia, Canada, and New Zealand this is, of course, absurdly low. I found, when in New Zealand some years ago, that during harvest time the labourers were receiving 10*s.* a day and three meat meals. Yet large quantities of all farm produce are constantly imported and the question is often asked, how is it, with cheap land, ample sunshine, a fair rainfall, and such extremely low-priced labour, South Africa cannot export farm produce, but is dependent upon countries in which land is higher in price and labour is paid from five to ten times as much?

The investigations of the Commission will have already shown them that manufacturing in South Africa is yet in embryo as compared with the other Colonies. In the manufactures already established conditions vary greatly, but, speaking generally, a considerable number of coloured, Asiatic, and native workers are employed.

The Economic Commission, of which I had the honour of being a member, found that employers who imported European labour often complained that the efficiency of such labour was distinctly below that of the same class in Europe. How far this may be due to climatic conditions or our peculiar social environment is an open question, but, in my opinion, this latter factor has a distinct bearing on the question. The wages usually paid to these Europeans are very much higher than in Europe, but this is balanced to some extent by low-priced coloured or native labour. How far it is possible for South Africa, under these circumstances, to compete with countries having trained workers living under industrial conditions remains yet to be seen.

The actual work of hewing the rock in mining operations is exclusively left to the black workers. The white miner is a supervisor setting out the work and controlling the machinery and explosives. Much discussion has ensued, and very varying statements been made, as to whether it is economically possible to employ white workers exclusively. I submit though that, at this stage in the economic history of the sub-continent, it is not so much a question of what is possible if social conditions were different, but what is possible under existing social conditions, and it does not seem at all probable that the white man is likely to displace the native in actual mining work.

The skilled trades, such as building and engineering, are still largely in the hands of the white man—almost exclusively so in the towns—and his wages are very high indeed. In no country in the world are actual money wages in these trades so high as in South Africa, and even when costs of living are brought into account we find the real wages at the Witwatersrand higher than anywhere else, and at least as high throughout South Africa as in any other country.

This is one factor in the extremely high cost of living which prevails in the Union, and which must be borne in mind when the possibilities of industrial expansion are considered.

The effects of these social conditions permeate the whole life of South Africa, but it is impossible here to trace them to their ultimate results, and how they will affect the future of the country. I may, however, be permitted to refer to the question of white immigration. Many enthusiasts predict the time when South Africa will be the home of a white population comparable at least with Australia, and

even quote the United States as an example (it will be possible) for us to emulate.

The history of the past does not lend much encouragement to this view nor do the statistics of late years. The term "a white man's country" is used to describe the goal of our ambition, and immigration on a large scale the means to attain it. I think it is possible that we may increase our white population gradually by immigration, but they will not be the class who have helped so largely to develop the natural resources of the United States, to people Canada, and augment the population of Australasia. These consist, for the most part, of those willing and able to work with their hands, and who, in those countries, can command a living wage by manual labour. Experience elsewhere, notably in the Southern States of the American Union as well as what we see in South Africa, goes to show that this class will not immigrate to a country in which they have to compete with low-priced black labour. The immigrants we will get will be a comparatively small class of superior artisans to fill the gaps created, men with capital fitted to supervise low-priced labour in agriculture and, to a certain extent, manufactures, and those engaged in commercial pursuits.

It does not follow that South Africa will not develop and grow great on different lines. There are great possibilities in the country, and the increasing efficiency of native labour, improved methods in agriculture, the development of mining, and some progress in manufacturing will gradually make places for an increased white population fitted to take the higher posts. Concurrently with this the gradual improvement in quality of native labour with higher wages and spending power will help materially in economic advance.

But South Africa will always be a white and black country, and only by recognising this fact and suiting our actions to our circumstances can we attain what is possible to us.

806. **(Chairman.)** We shall be glad to hear your views?—My view was that the Commission after having been to other white countries such as Australia and New Zealand, if they came here, and I speak now for the centre of which Durban is regarded as the port only, without having a grasp of our social conditions, particularly our labour conditions, they could not make proper comparisons with the conditions obtaining in other self-governing Colonies. This question of the labour of the country enters into all matters affecting production in South Africa. Some years ago I visited New Zealand, for instance, and I found there that the agricultural labourer was paid something like five times as much as our farmers pay to the ordinary native labourer. Now that is a factor that cannot be ignored if we are to compare the production of general agricultural products in this country with another country like New Zealand. In commerce, also, the native is a customer, and although not a factor in competition he comes into the question again. In the mines, as you know, the whole of the actual labour for years has been done by the native, and the white miner is simply a supervisor. Then there was another particular point that you reported upon in New Zealand—that of immigration. If you are going to deal with immigration in this country, you must first and foremost recognise the fact that the whole of the manual labour in South Africa is done by the native, whereas the emigrant who goes to Australia, or New Zealand, or the United States and Canada, is largely a man who is going to work with his hands. Now there is no opening for that kind of immigrant in this country. If he comes here willing to work it must be to compete with the native. Take my own position, for instance, as a householder having a garden. I should have to employ one or two white men if I was in a country like Australia or New Zealand. I now employ natives instead, and if a white man comes along who is willing to work and do the manual labour, it means that my present small staff of natives is going to be disorganised. I would have to give that man a wage that would bear some relation to what I was paying the natives, and, in fact, there is no open ing for him; and so it is right through the piece. The white man is the supervisor of the ordinary native labourer and not the actual worker concerned. So if you are going to deal with this question of immigration in South Africa as you dealt with it in Australia, this fact must be borne in mind, because it goes right to the root of the whole matter. Might I say here that the year before last I travelled in the Southern States of America, and I found there that the great stream of immigrants into the United States, mainly, of course, from east and south-east Europe, was all going to the north and west and mainly into the cities, and that none of these people ever went to the south, that is, to the country in which the negro does most of the manual labour. They simply avoid it. Some years ago an attempt was made to induce them to go into South Carolina, and the State of South Carolina sent representatives to Europe to persuade immigrants there. They got a couple of steamship loads and the immigrants on arrival were fêted at Charlestown and received a hearty welcome, but in a year or two they disappeared elsewhere. They did not stay in the South and enter into competition with the negro in manual labour; and so I think it is in South Africa to-day, at all events in the country of which Durban is a port. I am not speaking for the Western Province; no doubt you found peculiar conditions there, where the coloured man takes the place of our native to a large extent. But speaking of south-east Africa, Natal, and Zululand, eastern Free State, and the eastern Transvaal, and the Transkei territories, the conditions are, I should say, that the white man has a great opportunity as a supervisor in many branches of skilled work and also in commerce, but not in manual labour; and the manual labourer, after all, forms the bulk of the people who are going to the other Colonies of the Empire.

807. Now you say that immigration on the lines of that to Australia and Canada is impossible here. Do you look forward to any immigration at all?—Yes.

808. What kind?—For instance, on the land, there is an opening here for the educated young fellow who is in a position to supervise and teach native labour and take advantage of it. I think for such a fellow as that, with training in farming, this country offers quite as good opportunities as any country in the world. Land is comparatively cheap; he need not do the manual labour himself; if he has the gift of getting the best out of the native labourer I think there is a very good opening here.

809. Will you give a little more detail on the point of the immigration you think possible and desirable. In the first place, would the man you have in mind need to come with or without capital?—With capital. I think he must have capital, but the amount of capital depends largely upon the character of the man himself. It need not be very much if the young fellow is of the right kind, but he should have some.

810. How would he get the necessary experience of local conditions before setting up for himself?—He could find a place with some other farmer already in the country. He would not get much in the way of remuneration until he had learned the native language, and could act as supervisor, because he would not be of very much use. The farmer would probably allow him to do a certain amount of manual work, and then he would be of more use as a supervisor. He could get the necessary training in the country.

811. Do you consider experience of local conditions essential before a man launches out for himself?—Absolutely essential, more so in this country than in any other.

812. How long a training does that involve?—Eighteen months to two years would be desirable.

813. What amount of previous agricultural training should he have before coming out to this country. You may possibly be aware the view has been taken in Australasia that agricultural training of an extended kind under conditions such as obtained in the Mother Country, so far from being beneficial, is rather harmful, because such a man has a great deal to unlearn, as well as to learn. What have you to say on that point?—I think that a very elaborate training in other con-

ditions would be a mistake. A knowledge of the principles that underlie all agriculture would be valuable, but any man coming from Great Britain or any of the other Colonies to this country would have a great deal to learn. Apart from climatic differences, there is this great question of employing native labour.

814. Does any agricultural college exist here which would give the beginner all the necessary knowledge?—Oh, yes, the Agricultural Department of the Union have several colleges. Here in Natal we have one in the midlands.

815. Is that suitable to the young emigrant coming into this country, or is it designed mainly or solely for the local-born individual?—The idea was to train the local-born man, but I should say that anyone coming from over-sea whose mind was set on farming, and who was of a proper type, would find a great deal of useful training in that institution.

816. What is the charge?—I forget exactly what it is, but it is quite reasonable; speaking from memory, it is about 40*l*. a year.

817. From your knowledge, have any immigrants from over-sea gone to any of these colleges?—I do not know whether you would call them immigrants, the men from oversea, but they are not all Colonial-born who go there.

818. You say that wages in New Zealand, when you visited the country, were five times as much as the wages paid to the natives here?—I said so, speaking generally. I was at New Zealand at harvest time, and in the province of Timaru, the man I was staying with was paying 10*s*. a day, with three meals, for harvestmen. Well, now, in this country, the arrangement made with natives includes tenancy of the land, very often, so you cannot compare them in the same way. The native here is very often a tenant on the land, and has a kraal site when working for the farmer, and he would probably receive an average wage of something like 15*s*. a month.

819. What is the comparative efficiency measured by work done?—That is a very difficult thing to say, but there are natives remaining in the same service under the same man for many years. That man teaches them and makes very efficient workers of them. Many farmers will tell you that these natives are quite as good as white men. Of course, they vary very much, but it is quite possible, with right handling, to get very efficient work out of the native. He must, however, be well looked after and not left too much to take the initiative. He must be shown how to do things.

820. You state in your memorandum that South Africa will always be a black and white country. What precisely do you mean by that?—Well, sir, politicians talk about this being a white man's country, they do not define it very clearly.

821. What do they mean?—I do not know. But one thing I am certain of, and that is that the black man is going to remain in this country, and he is going to have the largest share of the manual labour which is done in this country, and still I feel also that there is an opening for the white man, if the white man will be a white man, and act up to the best traditions of his race. There is room for both.

822. Do you look forward to a gradual improvement in the ability and capacity of native labour?—I do; it has shown itself already. If you discuss the matter with people who work with native labour on the land, they will tell you that some of it is very efficient.

823. It is increasingly efficient?—Yes, increasingly efficient. But you have to discriminate there. A native may be exceedingly efficient on a job after you have shown him how to do it, and he may do it even with judgment and follow exactly what he is shown, but I do not think that the native is fitted to take control of a large number of men. I do not think he is fitted to do two or three things at the same time. There are racial limitations to the native, and they do not include the ability to supervise and originate, but they do include the ability to do a certain set task admirably and efficiently.

824. And you think that inevitably the sphere of the native will enlarge?—It must do.

825. You think that is almost a necessary consequence of the facts?—It must be.

826. **(Sir Alfred Bateman.)** There is only one question that I would like to ask, and that is from a statistical point of view. I have not been able to find any satisfactory statistics of the numbers of the native races. Have you formed any impressions in regard to Natal, as to the proportionate increase of the two races?—The last census returns would give that, the one for 1904 and the one for 1911. This return will give you the actual figures and show the increase.

827. These figures for the natives are not very satisfactory?—They are not very complete, they only give you a general idea.

828. It is very general indeed, and it is difficult to say, if you exclude the big reserves and the areas set apart for natives; it looks as if the white race is going ahead a little bit more than the native?—Yes. I think that is correct. There is a certain increase of whites by immigration. The natives increase enormously in an open country, as, for instance, in Basutoland. In the early days, according to figures, they doubled their numbers in ninteen years, and in Natal in the early days when Chaka had swept the land and left it empty, the refugees who came in increased enormously, but they are not going to increase in the future as they have done in the past. They are very prolific, but the conditions are not so suitable. The land is getting filled up, and they have not the same room that they had.

829. Will their birth-rate follow the tendency in all civilised countries, that is, to diminish?—No, the babies will be born, but they will not live.

830. Do you think then that infantile mortality will increase?—Yes. The native will never keep down the birth-rate consciously and willingly, but the conditions will not be so favourable. In the olden times they had any amount of cattle, and the lives they lived were idle and healthy, but now they are getting more crowded, and many of them come out to work in industrial centres, and the conditions generally are not so good, so that infantile mortality up to a certain point is going to increase.

831. Do you contemplate that in another generation's time the proportions of the two races will be different from what they are now—natives and whites? Will the proportion of whites be less?—No, I do not think so, I think it will keep much about the same.

832. **(Mr. Campbell.)** In regard to the immigrants of whom you speak—the possible immigrants—could you give me any general idea as to what minimum capital would be required to start a man farming here?—Not a great deal to begin in a small way.

833. Would 500*l*. be sufficient?—Yes, but that should be the minimum. If the man leased the land, and put his back into it, 500*l*. would be sufficient. Our seasons are very uncertain, you must remember.

834. You say there is a certain amount of gambling attached to it?—Yes.

835. Is there any Crown land in Natal available for settlement?—There is not now a large quantity, and what there is is mostly in inaccessible parts. You cannot look to the Crown land to settle many people on. The old Natal Government expropriated areas of good land, and divided them up and sold them. I do not think there is any of that land left, or very little, and the original Crown lands are in the more inaccessible parts.

836. You do not think there is any advantage in any set scheme for the expropriation of land?—Yes, I think so. I think the Government might expropriate. They could not do it on a very large scale, but they might settle a good number of people on the land by wise expropriation. Mind you, they would all want native labour. The only people who did not use native labour were the original German immigrants in their early stages. They did practically all the work themselves, but as a rule, whenever they get more prosperous, and when the sons grow up, they want native labour.

837. Now, as to a scheme to attract immigrants here—I suppose they are not coming in any quantity?—Last

year the numbers coming into the country exceeded those going out by 380.

838. What would be the class that came in? Would they be people going to take up land?—A certain number. They come for commerce, and a few skilled artisans; but a certain number would go on the land. As a rule, those who come and go on to the land are young fellows who have some money.

839. Could you suggest any scheme by which immigration of that sort could be encouraged and popularised?—I think myself that the scheme I understand is in operation in New Zealand of introducing boys might suit here. I have seen notes of it in the "United Empire Magazine" from time to time. Poor boys were introduced and given to farmers under regulation, and I hear that it has been quite successful. I do not see why a certain number of boys of that class should not be introduced here. I think farmers would be willing to take them, boys, say, 14 or 15 years of age, who would gradually grow up on the farm and learn the native language, and in time take up farms for themselves. I think myself that is perhaps the most hopeful line. Young fellows with capital are going away to East Africa, America, Australia, and New Zealand, and we want to attract as many of these as possible, and I think the chances are as good here as anywhere. I know something about East Africa, and I think the chances in South Africa are quite as good as there, newer country though it is; but next to those I think the boy is the best.

840. But would the boy immigration scheme be possible here, seeing that farming here requires considerable capital?—They grow up on the farm, and are taught by the farmer, and they learn the native tongue and how to handle the native labourers. At first they would do odd jobs on the farm, and then gradually get to learn all about the work of farming on South African lines, and after a time the farmer would use them as supervisors. With this training they would not only learn the work of farming, but be able at any time to get employment as overseers, or take up land for themselves.

841. In order to offer attractions to young men with capital, would you advocate a scheme of resumption of private lands by the State for the settlement of such people?—Yes.

842. And there is a good opportunity in this country for such resumption?—Yes.

843. What is the average price of land in Natal—of ordinary good land, say, for the standard form of agriculture or sugar-growing, and so on?—You must not confuse sugar-growing with general farming. As for general farm land, ten miles from the railway—unimproved, healthy for stock, and with a fair proportion of arable land, I should say 2*l.* an acre.

844. And there is a fair quantity of such land available not being put to full uses?—Yes, it is privately-owned and not being fully used.

845. Would it cost a great deal to acquire and improve it?—No, it is all grass land. It would require fencing, but a man could put his stock on it shortly after purchase.

846. Would it be fit for cultivation?—There would be a certain proportion of arable land. It would not be all arable. I should say an average place would be 10 per cent. arable, and the rest would be quite suitable for grazing.

847. **(Mr. Tatlow.)** What about the sons of the farmers? Do you not think, as they grow up, they would provide sufficient white supervision for the farmer?—They would provide a good deal. I am not advocating a large number of boys.

848. Does the farmer have a large family here as a rule?—The Dutch farmers certainly have, but in Natal, where the farmers are principally English, the families are fair. I should think they are larger than townspeople have.

849. Then to a considerable extent the farmer does provide supervision by means of his sons, as they grow up?—Yes.

850. When he does grow up, to what does the son of the farmer usually turn his attention if he does not remain on his farm?—They usually go farming, and they are the best supervisors.

851. You said that any young man coming out here to settle on the land would require to have a capital of not less than 500*l.*—that he should not think of starting on less. That, I presume, is not until he had served as a supervisor?—Yes, that is my opinion, certainly.

852. But are there openings for many overseers?—Not for very many. But for a good number of the right sort. A man who has a knowledge of farming in this country, who understands natives and can manage them, can always get a job here.

853. You advocated sending out boys to work on farms. But they would not have capital, and they would not be paid at such a large remuneration as in Australia and New Zealand, so they could not save much money. What would their chances be of acquiring land? In Australia and New Zealand I think their wages would be about 15*s.* a week and their keep, and the greater part is put by for them, and when they grow up they have sufficient capital to go farming themselves?—Up to 14 or 15 they would not get 3*l.* a month here, but by the time they had a knowledge of their work and could manage natives, they would get more. I do not see why a boy here after he had got used to the country and its peculiar conditions should not get more than in Australia as a farm labourer, because in this country he is a supervisor of other labourers. As a manual labourer he could not hope to do it; but as a supervisor of others, yes. But this only applies, of course, to a limited number of boys; you could not import thousands or hundreds at once.

854. But to a limited number you think there is a fair prospect?—I think so, certainly.

855. **(Mr. Sinclair.)** In whose occupation are these lands that you suggest might be made available for young men coming here with a certain amount of capital?—A certain number of farms are held by absentee landlords—land companies. A farmer, for instance, will have two or three farms. He may live on one, and it is no uncommon practice to devote another entirely to labour. The natives are tenants on this farm, and pay a small rent, while they are under an obligation to come out and work for him when required on the farm on which he resides. These lands are held in these different kinds of ways, which might gradually be expropriated, though perhaps not to any very great extent.

856. Then it would not involve depriving the sons of those who farm these lands from getting their share later on?—No.

857. There are lands held by companies who are absentees?—Yes.

858. And there are areas that are not worked by the actual owner, but are let by him to natives?—Yes.

859. First: as regards the companies who are absentees, are large areas of land held in this State by them?—I have never actually tabulated it, or gone into the question closely, but one or two companies are holding large quantities of land. They have gradually sold some, but they still hold large quantities.

860. Was that land taken up primarily for the purposes of production, and, secondly, with the object of cutting it up by way of speculation?—Do you mean taken up by the original company?

861. Yes.—I think it was taken up largely for speculation. One of these companies is the Natal Land and Colonisation Company—an old company.

862. Is there much of this land available that might be used for settlement under a scheme such as you have suggested?—Yes, there is a fair quantity.

863. Are many farms owned and let instead of being worked by the owners?—Yes, a good many are let to natives, of course. There are not many let to white people.

864. There is no system in operation under which young settlers with a certain amount of capital are sought for, is there?—The late Natal Government, as I said, expropriated a certain quantity of land and cut it up and gave it to suitable farmers. There was quite

a good demand. The result was quite satisfactory on the whole.

865. Was that land taken up by those who were already in the country, or by outsiders?—There was a demand for all of it in South Africa.

866. Then there is a demand for land by your own people—by those who are already in the country?—Yes, and I may say that a very large proportion—a much larger proportion than in the past—of the sons of townsmen who go on the land. We have some very good farmers who are the sons of people who followed the profession of commerce in the towns, and there appears to be an increasing desire.

867. And in face of that desire do you think there is also room for the outsider to come in?—Yes, with some capital.

868. The competition between those two classes of men may result in the price of land going up?—Yes.

869. You spoke about boys. Do not you think that boys of the class that we are taking to New Zealand would here necessarily come into competition with cheap labour, having regard to the class from which they come?—I have known boys brought here of the poorer class, and if they get into good hands they have done well. They are white men after all, and they get the status of a white man. The white man takes a higher status here than in an all-white country, because he is a white man, but they have to learn the native tongue, and how to handle the native. I am quite against the introduction of immigrants of a low stamp, but I think boys who fell into good hands such as those would do well.

870. You spoke of the high wages that are paid in New Zealand. Did you say that the time was about harvest?—Yes, of course, they do not get that all the year round.

871. That was a special season?—Yes.

872. And you found that the cost and the standard of living were high?—I was there ten years ago, and, as compared with South Africa, I did not think the cost of living was high. The standard of living was certainly high.

873. When you say the cost of living was not high, are you referring to your recent visit, or ten years ago?—Ten years ago; I have not been there since then.

874. You know that all over the world the cost of living has gone up in recent years?—Yes, but at that time the cost of living in New Zealand as compared with this country was low.

875. But not low, I take it, when you compare the class of farm worker in New Zealand and the native who does the work here?—The farm labourer there lived on three meat meals a day. Our native here lives on three turns of mealie porridge a day.

876. Exactly. So that you can scarcely make a comparison between the cost of living in New Zealand ten years ago and the cost here?—I mean the cost of living among white people.

877. But we are comparing the cost of living of the white worker on the land in New Zealand with the cost of living of a white man on the land in South Africa?—No, I was speaking of the general cost of living in town and country, all over.

878. Are you getting, under existing conditions, any or many young settlers from outside with capital to take up land?—Not a great many.

879. You are getting some, but not many?—Yes, it is generally those who have friends here or some connection, or something to attract their notice to the country.

880. **(Sir Jan Langerman.)** Talking about the immigrants coming with capital and boys, in regard to the capital you say that those with capital could go elsewhere if they liked?—Yes.

881. You say that land costs 2*l.* an acre?—Yes.

882. How does the cost of land in other parts where they could go to compare with 2*l.* an acre here?—You mean to say in Australia or New Zealand?

883. Yes, or Canada or America.—I am not sufficiently familiar with the prices of land in those countries to be able to make a comparison.

884. Do you not think that the price of 2*l.* an acre which the newcomer would have to pay here would militate against his coming here, because they would be able to get land cheaper elsewhere?—I said I did not know the prices of land in these other countries. But I have a certain amount of knowledge and have formed certain ideas, and my idea is that land in South Africa is cheaper on its intrinsic merits than it is in most other big Colonies.

885. That is, given that the land falls into the hands of an experienced person, and not into the hands of a man who has to learn his experience yet?—Yes, he must be an experienced person to get the value out of the land. But, taking into account what you can produce, the land is cheaper in South Africa than in any other big Colony—that is my idea.

886. It has been pointed out that in regard to the boy who has served his apprenticeship to a farmer, his pay would be so low that he could not save sufficient money to acquire land; but is not the land law of this country easy to get land for anyone experienced in farming?—We have the Land Bank.

887. Did not the Government pass a law two years ago whereby a man can acquire land by putting up one fifth of the purchase price and paying the rest in twenty years?—Yes, the terms are easy.

888. Do you not think those are very easy terms for acquiring land by one who wishes to farm and has experience of this country?—Yes.

889. So there would be a good future for those boys who came out if they stuck to their work?—Yes.

890. In regard to white labour coming into competition with black, you mentioned America, where the white immigrant avoided the Southern States. Is not the same true of India; do you find white labour going to India, or the Malay States, or Ceylon, or the West Indies?—No.

891. White people do not go where black labour exists?—No.

892. So, therefore, there is nothing unique in South Africa?—No. The white man cannot compete with the black man.

893. Because, I take it, our whole economic system from the earliest days of our South African Colonies has been based upon black labour?—Yes. It is no use flying in the face of facts. There they are.

894. **(Mr. Lorimer.)** In this very interesting memorandum of yours there occurs this paragraph: "Large "quantities of all farm produce are constantly imported, "and the question is often asked:—How is it, with "cheap land, ample sunshine, a fair rainfall, and such "extremely low-priced labour, South Africa cannot "export farm produce, but is dependent upon countries "in which land is higher in price and labour is paid "from five to ten times as much?" Now does the relation of the population to the imports of food remain fairly constant?—I have never analysed them, but we are at present, as the commercial witnesses will tell you, importing very large quantities of all kinds of farming produce that we profess to raise in the country, even with only one and a quarter million of white consumers.

895. I want to ask whether the larger experience which these natives acquire on farms tends to increase their production?—Yes, the native is getting a great deal better farm labourer than formerly, and certainly the farmer in South Africa is getting to be a better farmer. We are importing and exporting larger quantities of stuff from the land than we did.

896. The exports are increasing?—Yes.

897. But if you continue to import the same quantities of food as before, is it because you are not increasing the agricultural production?—No, I think the agricultural produce consumed in the country is greater than it was. We are improving, but we are only improving slowly, and what I say, therefore, is perfectly true, that notwithstanding our favourable position—cheap land, cheap labour, plenty of sunshine, and a fair rainfall—we are still having stuff coming into the country that is produced on high-priced land with high-priced labour, and it is knocking us out.

898. And the object of my question was to ascertain whether you have really effective labour in that cheap labour?—Well, sir, it has its advantages and its disadvantages. I believe that in a country in which

you have low-priced inefficient labour it has a tendency to lower the standard of production in that country.

899. You said to one of the members of the Commission that natives have been known to make almost as good labourers as white men. Is that agricultural labourers, or are you speaking of general industries?—I was speaking particularly of agriculture.

900. Would that man's wages be increased because he was a better workman than the average?—Usually only slightly. He does not demand it. He does not realise that he is so much a better labourer than the other man. He realises he is a native, and that is all. It is not quite the same case as that of white men.

901. I do not know much about agriculture myself, but as a manufacturer I think I can say this, that high wages are generally cheap wages?—Yes.

902. You have the black man here, and you cannot get rid of him, and the black remains the dominant population, in respect of numbers at any rate; now, would it not be a wise policy on the part of the Government, or the authorities concerned, to endeavour to develop this man's capacity?—Yes, if you can be sure that there is a field for that increased capacity.

903. You cannot get rid of these men—they are there for all time, and the relation of the white man to the native is, no doubt, a difficult one, but you certainly make the best of the country, I should think, and make the best of them if you make them more productive?—I have not the slightest doubt that, as regards agriculture, that is on the right lines. I should make the native as productive as possible, but we ought not to forget that, if we train them industrially in trades, we have to reckon with competition with the white man, and that is a matter that calls for very serious attention. If you could train them industrially to work among their own people, there is no doubt about that being right, but if you are going to train a large number industrially, and then bring them into the towns or industrial centres, they are going to compete with the white man, and then you are not only going to have industrial troubles, but labour troubles plus racial troubles.

904. I realise how perplexing it is, but there is the fact, from which you cannot get away; and what is the best way to deal with it? Has there ever been any opportunity of comparing the work of a white man with that of the native under absolutely similar conditions?—Yes, there have been a good many experiments made here with varying results. The Government have employed gangs of white men on construction work, on the railways, both piece-work and day-work; and certain mines at Johannesburg have employed white men and tried to make a comparison between their work and that of the native, but I may say that these results vary very greatly. One man will tell you that the white man has shown himself capable of doing manual work economically as against the black, and another will tell you that he has failed. As a matter of fact, I think that in purely mechanical, physical work, for instance, the filling of trucks all day with sand, the white man could not economically face the black man, but there is a good deal of work in which initiative and intelligence come in, that is not skilled work in the common sense of the term, and there, I think, particularly if he is on piece-work, the white man has a chance.

905. You speak here of the report of the Economic Commission on the imported European labour and its effect on the other. But while you are in doubt as to what the effect of that may be in the development of industries, I think you have to bear in mind that there is an element in that question which is altogether apart from the character of the men you employ. Nowadays, when you have industrial organisation on a scale of such magnitude as obtains in the United States and in England, you can hardly expect, no matter how you develop your population here, to be in a position to compete with this organisation and these highly organised industries elsewhere; do you not think so?—Well, we have not done it so far, on a large scale, but I do not see why it should not be done in certain industries—those in which the native could be employed at purely mechanical tasks.

906. One moment; when you use the term "mechanical," do you mean manual or skilled labour?—No, I mean unskilled. I mean mechanical in the sense of doing the same thing over again and again—not mechanical in the sense of using machinery. In industries that could properly utilise native labour I do not see why there should not be a great advance.

907. The impression this report left on my mind was that as you have a race of men here whom you cannot get rid of whether you may wish to do so or not, it is a question whether the development of the country might not be greatly furthered by increasing the efficiency of these people?—I agree with you in general terms.

908. **(Sir Alfred Bateman.)** In regard to that question which you ask in your memorandum, and to which Mr. Lorimer has already referred, is not the reason for your importations of farm produce a purely economic one, namely, that the food you import costs less than what you could produce it for here, while you are employed in making or exporting something which pays you better?—That would be a partial answer.

909. And the rest?—I think one factor is that we do not farm as well under our conditions here. The abundance of low-priced labour tends to slacken us in production.

Pietermaritzburg, Friday, 27th March 1914.

Mr. J. Marwick, Vice-President; Mr. S. B. Woollatt, Member Executive Committee; Rev. James Scott, Member Executive Committee; and Mr. Duncan MacIntyre Eadie, Secretary, of the Natal Agricultural Union; called and examined.

(For the evidence of these witnesses on "Animal and Agricultural Produce," see p. 238.)

910. **(Sir Alfred Bateman to Mr. Scott.)** I understand that you have to leave early, and would like to be examined first. Would you wish to make a statement?—Well, I was not prepared to make a statement, but I would like to give my opinions. I have had a considerable amount of experience, nearly 64 years now. I consider that South Africa is very favourably situated for settlement if we can get the right sort of men. But, unfortunately, we get a good many who are not of the right sort. We want men who will work both with their hands and their brains. We have men who work with their hands and not with their brains, and on the other hand, we have men who do not work with their hands. I feel that we could take into this Colony of Natal a few hundreds every year of the right sort, with great advantage to themselves and to the Colony also.

911. They would superintend the native labour?—They would gradually come to that.

912. Would they work with the native in manual labour on the land?—Well, every man who is to succeed in Natal or in South Africa generally must be able to work with the native—to guide and direct the native. He must have a knowledge of the work that he has to guide the native to do. That is the kind of man who will succeed on the farms in this country—the man who can guide the native, and get on with the native, who does not knock him about and ill-treat him

and drive him away, but who knows how to get a fair day's work out of him. That is the kind of man we want in South Africa, and in Natal particularly.

913. What class of man would this be?—I should say he should be recruited from the agricultural class—the working farm class—the farm labourer with a little education.

914. What you want are rather picked people?—I suppose we are like every other country in the world. Those are the men who get on.

915. We have been told that there is a demand for boys from outside—that boys of the best class from the towns would be able to work up to that kind of thing?—In regard to such as have been brought out, a percentage do well and a considerable percentage do not do well. But we have seen some of those young lads come out and do very well.

916. **(Sir Rider Haggard.)** Are people in this part of South Africa going out of the towns to settle on the land, or coming from the land into the towns?—I do not think the movement is very decided either way.

917. The towns are, many of them, agricultural towns?—Yes. There are always a few, especially with one class of people, who are very apt, when they reach middle age, to take up town houses. The Dutch are very fond of leaving their farms to their children and settling in town. There are many cases of that.

918. You talked of the "right sort of man" whom you wished to see emigrate here: I understand you to mean the typical agricultural labourer?—That is so.

919. Are you aware that that class is rather short at home?—Yes, I saw that recently. I have just returned from home. I was there last summer. I was on the farms a good deal, and I saw that the very men I wanted were not at all over plentiful.

920. In fact, I am afraid you want to draw water out of a dry well. Would you not want a man with capital?—No, I think not. I think the man coming out to start farming in Natal generally loses his capital before he has been long at it. But men who have come with no capital, and have worked hard and got experience, have done well.

921. You prefer the man without capital?—With very little indeed. But if he has capital, he should invest it, not in farming, but in the bank, or in sound securities, and use it when he has the needful experience.

922. How about the value of land—is it rising?—Yes. From the time I can first remember, the land has risen exceedingly in value. For instance, the price of land in the Klip River district in my early days was 6*d.* per acre. I can remember a farm being sold at that figure, belonging to John Allison, and I suppose you would not get that farm to-day for less than 5*l.* an acre.

923. Is that 5*l.* the ordinary price of land to-day?—Only for the best farming land, except on the coast—the choice parts, it is above that—but from 2*l.* to 5*l.* an acre, I should say, with 1*l.* for the very rough land.

924. Is it easy to make land pay that costs 5*l.* an acre?—Well, with wattle bark at the prices it was a few years ago, it would pay at 5*l.*, but I doubt if it will to-day; 3*l.* is now more about the value of wattle bark land.

925. Wattle bark land will grow other crops too, will it not?—No, it will not. It will do for grazing, but it is generally land on the bush veldt which is too wet for mealie-growing. It grows some things fairly well, but the best wattle land is not considered to be very payable land for other crops.

926. Then it is very inferior land?—To my belief it is. It is not equal to the low veldt land, where you can grow food crops if you get moisture enough. But the thorn valleys of Natal, as you know, are generally short of rain. But the high hills which catch the rain grow the wattles best, and although the wattle likes a good soil it will grow in a poor soil.

927. It comes to this, then, that land which is inferior is worth 3*l.* an acre?—If close to the railway.

928. And at that rate, what is land which is not inferior worth—the best land?—Some of the best mealie-growing land you will hardly get at 5*l.* an acre. There has been some land sold lately at 5*l.* I have known some go to even 7*l.* and 8*l.* an acre.

929. Does it pay at that great price?—No.

930. In other words, the price of land has been inflated beyond its productive capacity?—Yes. It goes up and down. But in my time it has gradually risen. It goes down, and then rises higher than ever it was before. For the last ten years, I may say there has been a distinct advance in the price of land.

931. Is that advance justified by the returns?—In some cases it is, and in many cases it is not. It has often been sold at an altogether fictitious value, and it could not bring in anything like interest on the money paid.

932. On the large sums charged for the fee simple?—Yes.

933. Then why do practical men give such prices?—They do not. They wait till the price goes down and then buy.

934. You mean, then, that it is the fools who are buying it at the high price?—I think so.

935. **(Mr. Sinclair.)** Did I understand you to say that in your opinion a man was not wise to give as much as 5*l.* an acre for farming land?—It is difficult to say, the advance has been so great in my lifetime that I cannot say whether it will not advance to 10*l.* in the next few years. I can only say that I should find a great difficulty in making it pay interest on that.

936. It does not seem a very high price?—No, it does not, but it would have to be very good land and very close to the railway to be worth that.

937. What would land at an intrinsic value of 5*l.* be capable of producing? What class of farming would you get the best results from?—It depends on how it is worked.

938. But taking the land that can be got at 5*l.* an acre, what can be done with it?—Some land at 5*l.* an acre would be good maize-growing land, and the only difficulty would be, of course, to have the rains at the proper season. If rain came at the proper season the land ought to produce a good crop of maize.

939. If maizes were a part of the crop then the ordinary climatic risks would have to be taken?—Yes.

940. Maize is one of the products?—Yes.

941. And what else?—Of course, on that particular ground where you grow the maize you cannot grow anything else for a year.

942. But I am speaking of mixed farming on land worth about 5*l.* an acre. You tell me that maize is one form of produce that can be grown on a part of it and that it either succeeds or fails, depending on the season?—Probably the farmer would also have cattle. He feeds the cattle on the grass portion of his farm during the summer months and turns them into the mealie stalks after the maize has been reaped during the winter.

943. In the vicinity of the town would not dairy farming be a profitable investment on land at 5*l.* an acre?—Well, I have a son-in-law who is dairying within five miles of Maritzburg, and he does not find it very profitable on land which has cost less than that. A living can certainly be made, but it is not so very profitable.

944. I was going to ask you for your opinion as to the general system of farming throughout Natal. Would you say that small farming is well conducted or otherwise?—That is a very difficult question to answer. It is in some places well conducted, and in others there is far too much polo playing and tennis playing to the neglect of the farms.

945. Then you would say that indifferent cultivation prevails to a great extent?—The European cultivator is generally a fairly good cultivator, but the native is generally very inferior.

946. As to the question of financial assistance which is given to farmers, do you find that the banks that carry on business in this district give reasonable facilities to farmers?—I think they do. Of course, you are aware that the Land Bank exists. I think that institution has been giving unreasonable facilities to farmers, which has had the result of ruining them instead of helping them. They do not spend the

money on their farms. It comes freely, and it goes freely, and to my mind it is a very bad system.

947. Is it not a system which, if well used and used for the purpose for which it was intended, would assist farmers to develop their lands, and be of great benefit to the country?—Yes, but unfortunately in many cases it has not been so used. The money has been used for other purposes than that of improving the farms.

948. Then as to labour, in default of men of the right sort coming here, who we all know are exceedingly scarce everywhere, do the sons of your own farmers work into the position of supervising native labour?—Some of them do.

949. But not in sufficient numbers?—No, the country could take a good many more. I believe that Natal itself could take hundreds every year.

950. And the advent of these numbers would not seriously conflict with the interests of your own men, I mean those who are born in the Province?—It would perhaps necessitate their doing a little more work and not having so much amusement.

951. It would afford a healthy stimulus?—Yes, it would be a useful stimulus to the farmers.

952. Is the discipline involved in the work which the coloured labourer has to submit to bringing him gradually into the position of being able to supervise labour?—In very rare cases will he ever be a good supervisor. Not for many generations to come. I have only known of one native who was able to supervise, and that was only because he was instructed by his white master, and made to do it.

953. **(Sir Alfred Bateman to Mr. Marwick.)** Have you anything to add to the views which Mr. Scott has expressed?—Yes. The question has been raised as to whether there is land available for farmers. I may mention that there are large quantities of land held in this Province by absentee owners for speculative purposes. I think that legislation should be passed to expropriate this land and make it available for emigrants or people who are already here.

954. Would that refer to a big land company like the Natal Land and Colonisation Company?—Certainly, the colonisation part of their title is altogether wrong.

955. I suppose that most of their land was bought a long time ago and they gave very little for it?—Yes.

956. They gave little for it and have had little out of it?—They have had the Kaffir rents out of it for a great number of years, and they have sold land for ten times what they gave for it.

957. I think I saw in a financial paper the other day that they only paid 7 per cent.?—I am aware they do not pay a great amount of interest, and they did not pay any interest for a long while, but they must have a big profit, or else there must have been a big leakage somewhere.

958. Then you think that a company of that kind is not in the best interests of agriculture?—No, they have been like a millstone round the neck of Natal.

959. Are there any other companies like that?—I am not aware of any companies, but there are any amount of private individuals.

960. Is there no legislation in the Union which discourages that?—In Natal there was an Act which enabled the Government to expropriate any land if they required it, and this Native Land Act, if it is stringently enforced, is going to hit these people pretty hard, and make these gentlemen part with a lot of their land.

961. How will that be done?—Under this Act they will not be allowed to charge rent to the natives, because, according to the Act, no rent is to be charged in money or kind, labour is to be the only return, and these people are not likely to keep the natives there if they are not allowed to charge rent.

962. I do not quite understand the provision. What land does it refer it?—To all private lands. It is proposed in a way to segregate the natives, and to help to do that they are going to prevent anybody who has natives on his land charging them rent. These natives are to be as servants, and if he cannot get sufficient return out of their labour those natives have to go somewhere else. **(Mr. Woollatt.)** Every native living on a European farm must work for 90 days a year, or the owner of the farm is liable.

963. Is that under the present Act?—It is under an Act passed but not yet in operation. That part of the Act is suspended while a commission is sitting to inquire into its operation.

964. It is something like the old system in Europe, the corvée?—Well, there is a lot of land owned by Europeans, and they have these natives as squatters, who pay rent to them. Under this new law they will not be allowed to have these squatters unless they keep them solely for their services in lieu of rent. Assuming a man has a farm with a lot of these natives as tenants, he will not know what to do with all this labour, so they will have to go elsewhere, and they will have to put the land to other uses. **(Mr. Scott.)** The Act is not retrospective. Those who have natives who are paying rent now can continue, and those natives can remain.

965. **(Sir Alfred Bateman.)** Is this Act in operation?—**(Mr. Marwick.)** It is not absolutely in operation. **(Mr. Scott.)** A commission is now sitting to consider which lands are to come under the Act, and which are not.

966. Can we have a copy?—No doubt it will be supplied to you by the Union Government.*

967. **(Mr. Sinclair to Mr. Woollatt.)** I suppose the speculating companies of which you spoke, whose shareholders got no dividend in the early days, were simply, during those years, holding the land for a rise?—Yes.

968. That is the reason why they would get no dividends?—Yes.

969. Do you agree with me in believing that the middleman when he is a speculator in land is a curse to a country?—Yes, when he is holding land for a rise which is badly needed for farming purposes.

970. Is it not a fact that when the land ultimately reaches the man who has to work it, he is for all time loaded up with the middleman's profit, and has to earn interest on it as long as he holds the land, and everybody who comes after him who buys at his price?—Yes.

971. Where land is available in any locality, and there is in that locality land hunger by the many, are representations made to the Government to induce them to take up land compulsorily?—There have been numbers of cases under the old Natal Government before union took place. Things have been upset since.

972. When land is taken by the Government under those circumstances in order that it may be cut up for the man who wants a smaller area, does the Government road the land and fence it into smaller portions?—No, they survey it into small blocks.

973. And are those smaller areas put up for sale for cash, or are they balloted for?—They are balloted for.

974. Is it a part of the system that those who are successful once shall be excluded from future competitions?—Yes, no one who is the holder of a portion is allowed to acquire one of these blocks.

975. **(Sir Rider Haggard.)** Now, what proportion of the land of Natal is held by these absentees?—**(Mr. Marwick.)** I could not say definitely, but very considerable areas.

976. Would it be a quarter?—Possibly one-eighth or one-tenth.

977. No actual tax has ever been put on them?—No, there was one once, but it was only in force one year, and then taken off.

978. Why?—It was put on when the Natal Government were hard up, and when they got flush next year they took it off.

979. You are of opinion that it would be a very good thing if such lands were taxed so as to force them on the market?—Yes.

980. And so as to put an end to this practice of holding up great blocks of country for a rise?—Yes.

* See Act 27 of 1913.

Pietermaritzburg, 27 March 1914.] Mr. J. Marwick, Mr. S. B. Woollatt, Rev J. Scott, and Mr. D. M. Eadie. [*Migration, Land Settlement, and Irrigation.*

981. Is it not a fact that people in this country, perhaps in the great majority of cases, are holding a great deal more land individually than they can work to advantage?—**(Mr. Woollatt.)** Yes, and that is where East Coast Fever did us some good. It prevented these people trekking to the thorn veldt and made them grow food.

982. Many people are holding far more land than they can put to profitable use?—Undoubtedly. Half the land held by Europeans is not used.

983. It is practically waste land?—Yes, in summer there is abundance of grass and very little stock, and in winter it dies off.

984. And somebody puts a match to it and burns it off—what there is of it?—Very often.

985. It is a state of affairs that will bear improvement?—Oh, undoubtedly, and that brings up the question of the value of the ground and the water supply. The average farm is only half grazing land, and you cannot call any grazing land worth more than 30*s*. But when you come to hard-and-fast agricultural land, there are lots of land worth as much as 10*l*. an acre, if you could pick out the eyes of a farm. There are many farms, if you could cut them up into lots of four, three of them would have no water. Mr. Scott did not mention that.

986. I think Mr. Scott mentioned 5*l*. for the whole farm, all round, not picking out the eyes?—There are, in my opinion, very few worth 5*l*. for the whole farm.

987. There would be farms where you have a very strong spring and a deep valley with good soil, say 20 feet deep, that you could irrigate?—Yes.

988. That may be worth 5*l*., 10*l*., or 20*l*. an acre?—Yes. The wattle industry has put up the value of land a good bit. Syndicates bought the land at 5*l*. and 7*l*.—land which any man would starve on. All parts of the country are not suitable for wattles. Where I live, on the Mooi river, the frosts are too great and would kill it.

989. I do not understand yet about this Act. You say an Act has been passed, and you say a Commission is sitting on an Act which has become law?—I will explain. The Act was passed, but certain of its provisions were suspended for the time being, because it was doubtful what land would be affected. There were principles involved in this Act, and one was that it was felt by European farmers that they did not want native locations dotted about in their midst. For instance, at Mooi river, a certain man bought a farm. He was a speculator, and he saw a way of making money by cutting up the farm into two-acre lots and selling it to the natives. Of course, that meant that in the middle of the European community there would be a native location without control. Now, in the past, when natives have bought farms they have bought as a syndicate, and when the land failed to pay and reverted to the European, all the syndicate has gone down, and this system has lost its popularity. But when this man had the idea of selling individually, the natives were keen. And that was one idea of this Act, to set apart certain definite areas on which natives should live and to set apart other areas for European occupation only, and any natives living there could only live as tenants, giving their services in lieu of rent.

990. They were obliged to give forced labour?—Yes. The natives on my own farm, for instance, give forced labour. They pay no rent, but they are allowed to run their cattle and goats, and give their labour in lieu of rent.

991. You value their labour and set it off against their account?—Yes. The same would hold with any one else, except that you cannot have the curse of farms full of native tenants who pay rent to an absentee owner in Johannesburg. They steal your sheep, cut your trees, and if you kiek them off for misbehaving themselves, they go to the next farm, the owner of which holds the land to draw rents from the natives.

992. Has the Act been passed?—Yes, but the Commission is sitting to determine the lands which are to be set apart for the natives and which are to be set apart for Europeans.

993. **(Sir Alfred Bateman.)** Is it a Union Act?—Yes.

994. **(Sir Rider Haggard.)** It means an entire upsetting of the native policy then?—No. It will come about gradually. It is not retrospective. If natives are paying rent to-day, you cannot make them give service in lieu of rent. It cannot alter the contract. But if I turn a native off my farm he cannot go to another farmer and pay rent.

995. It is in operation?—Yes.

996. **(Sir Alfred Bateman.)** The Commission is sitting to define the land?—Yes.

997. They must have an equal amount of land somewhere?—Yes.

998. They do not want to dispossess the native of his land?—No.

999. **(Sir Rider Haggard.)** Does it apply all over South Africa?—Yes, I think so.

1000. **(Mr. Garnett.)** Am I right in understanding it this way: Suppose I have a farm on which I have been accustomed to let the natives live, receiving from them rent, and also their labour, which I have had to do to make the farm a payable proposition, in future I can only work with the man's labour—I must not eke out by charging rent?—You may with those who are there now, but not under any new contracts.

1001. Unless the value of the work given by the natives was sufficient to pay interest, they would have to go?—Yes.

Pietermaritzburg (Nel's Rust Farm), Saturday, 28th March 1914.

Senator The Hon. Joseph Baynes, C.M.G., farmer, called and examined.

(*For the evidence of this witness on "Animal and Agricultural Produce," see p. 241.*)

1002. **(Sir Alfred Bateman.)** Is there anything that you would like to say about closer settlement?—There is a great difficulty in that regard in this country. In other countries, closer settlement is brought about by working men going out to the country and engaging themselves to some farmer there, and then gradually starting on their own account. Here, he cannot do that. The European farmer is so well satisfied with the labour that he gets from the coloured man that he is greatly disinclined to take the white labour.

1003. But he wants the superintendence to be white, does he not?—He does that himself.

1004. I should have thought he would want help?—He does the superintendence himself. If I had time to take you round I could show you natives ploughing, sheep shearing, and other farm operations conducted by the native, and by the native absolutely, and in a way it would be difficult for the European to excel.

1005. Then there is no opening for the European to come here?—As a white labourer there is very little opening indeed. As a supervisor or manager there should be room for him. And those are the men who later on take up land themselves, and start farming on their own account. Those are the men who farm successfully, because they have the industrial education and the capital necessary for the conditions which exist in this country. I hold there is no country in the world where the farmer can be more independent and enjoy life more than in Natal with the labour that we have. It is so different from New Zealand, where the

farmer's wife has to do everything for herself in the household, and where the conditions of labour are so different from those here. I would not go to any other country, with my experience, to start farming and leave this. The conditions here are infinitely more happy for the master than in New Zealand or anywhere else.

1006. **(Mr. Garnett.)** You are in favour of closer settlement. You say there is no room for the agricultural labourer to come out. What class of man have you in your mind to put on the land for closer settlement?—The man who has capital enough to start farming.

1007. He must have capital?—Yes.

1008. And what amount would you place as the minimum of land on which he must start?—I can hardly say. My experience is with large areas, and I have had little or no experience of small areas.

1009. And, therefore, you would not like to say what capital he should have for starting on these small areas?—No; I could not give very reliable data on that.

TRANSVAAL.

Pretoria, Monday, 30th March 1914.

Mr. Izaak Jacob Haarhoff, J.P., called and examined.

(*For the evidence of this witness on "Animal and Agricultural Produce" "Forests" and "Fruit," see pp.* 249, 301, *and* 319 *of this vol., and on "Mining," see p.* 33 *of* [*Cd.* 7707].)

1010. **(Chairman.)** What are the points you wish to bring before the Commission?—In regard to land settlement, first of all, I do not think the Government carry it out in the proper way in one respect at least. There is this handicap—if the Government gives you a grant, or you buy a farm and the Government approves of it, they will give you an advance of 80 per cent. and you have to provide the 20 per cent. That farm is, in a manner, sub-let to you till you have made so many payments. But the Government not only get all the money they are entitled to, the full amount with interest, but they retain the mineral rights in the land, and I think that is a very big handicap. It is not fair to a man who picks out a piece of land to his satisfaction, for the Government to say, "All "right, we are going to keep the minerals." That is also the same fault with the land companies in the Transvaal. They do the same thing. They buy the land, keep it for a few years, and I think if you inquired, in the majority of cases they are making 100 per cent. to 500 per cent. profit on the land they have bought in the last five, ten, or fifteen years. But they are not satisfied with that, they still stick to the minerals.

1011. Your point is that the mineral rights should go with the surface rights?—Yes, then otherwise I think the Government arrangements are fair. Now, Mr. Bourke has touched on the Springbok Flats District.* That is one of the best bits of country I have ever seen in my life. On that land you can pull a plough straight for 50 miles, and there are not many parts where that can be done.

1012. Where is this district?—It is to the north of Pretoria. There are places on these flats where they have found the soil to be 1,500 feet. That is information I have had from the Irrigation Department. I was up there not two weeks ago, and you can now travel through sweet grass as high as this table all together. People have no idea what that part of the country is like. It is only lately that we have found what is there. Now, if the scheme which I suggested to the Land Department were carried out there would be an immense development in the district, but the Land Department have declined to undertake the work as irrigation experts say that national irrigation schemes are impossible in South Africa. You have on the west the Crocodile River, and on the east the Olifants Rivers, and if these two rivers could in some way be connected by means of canals, you could put all that country under water, or, at any rate, you would have the benefit of a canal crossing it.

1013. **(Sir Rider Haggard.)** Are the levels all right?—That I cannot say; in fact, on the Flats it is impossible to say which way the water is flowing because the country is so level.

1014. **(Chairman.)** How far is this from Pretoria?—It starts about 35 miles.

1015. At what village?—At Pienaars River Station.

1016. And how far north does it extend?—As far as Potgieters Rust.

1017. **(Sir Rider Haggard.)** The railway line runs right through the middle?—Yes. If the irrigation scheme on these Flats could be carried out at least half of the area could be used for citrus fruit. It is doing well to-day. I have never seen anything better than the fruit you get there. The maize crop is an absolute success, although the drought has been against it up to the beginning of the year. But in spite of that it is a success. The cattle there are always in good condition, and it is practically from that part that we get the principal supply of cattle in the Transvaal. You find Angora goats do well. Persian sheep do extremely well, and within 5 or 6 miles of the railway you can find lots of wild ostriches running to day, and game, of course, any amount. Another subject that I should like to mention is that of oil nuts or monkey nuts, and those are worth an average of 8*s.* to 10*s.* per 100 lbs. In that district they grow with very little attention.

1018. In regard to these Springbok Flats, what is the value of land there, and is it held in private hands?—Yes, it is held by private people very largely.

1019. What is the value?—The value is anything between 10*s.* and 16*s.* an acre; in some places cheaper.

1020. What is the rainfall?—About 14 inches.

1021. Not in these droughty years?—It is pretty well up to 14 inches always, rather more than less.

1022. Then it is purely a question of water to have successful results?—Yes.

1023. Are there any successful farms up there?—Yes.

1024. Well, the general effect of your evidence is that there are enormous possibilities in the Transvaal, and it is merely a matter of capital and a little intelligence to turn them into cash?—Yes.

1025. Are you of opinion that the real prosperity of the Transvaal will depend more upon its soil than upon its minerals in the soil?—I would say yes.

1026. And it is to that which you look for the permanent support of the country?—Yes, the possibilities are there.

1027. I suppose the fact is that owing to the glitter of gold and diamonds the soil has not had sufficient attention given to it?—Yes, that is one reason, but another one is that the people have not had the benefit of practical example.

* *See pp.* 246–8.

1028. And is that not due to the reason I gave, namely, because they have been too enamoured of the gold and diamonds?—No, not the majority of the people. No doubt that is true of a certain section.

1029. And you think what is wanted more than anything else are a few pace setters?—Yes.

1030. Anyhow there is wealth lying in the soil waiting to be exploited?—Yes. I can give you an example to show the truth of that. After the war there was a certain farmer who had six mules, 300 morgen of land and a plough, and that man sold his citrus crop last year for 8,000*l*.

1031. Is there an inexhaustible market?—Yes, in London and Europe; we have hardly touched it yet. You can grow anything. One man, for instance, has made a fortune by growing winter tomatoes in this country.

1032. Have you put down bore-holes in these Flats? Do you find water?—Yes, in some places, but in others they have gone down 1,500 feet, through nothing but soil. In other cases they have found water at 40 feet and 50 feet.

1033. Have they found any great quantity?—You can always keep the bore-hole pump going.

1034. In your opinion, there are no difficulties that cannot be overcome?—No, there are not. That is my belief.

1035. **(Mr. Sinclair.)** Are you able to give the area of which you were speaking that could be watered by means of canals and races?—I could show it better on the map, but I should say it would be a strip of country 100 miles long by 100 miles wide, roughly speaking.

1036. And you said, in answer to the last examiner, that these lands were in private hands?—The Government owns a good bit, and also the land companies.

1037. Has anything been done by the Government or by surveys to ascertain whether a scheme of irrigation is feasible and what would be the cost?—No, not so far as I know.

1038. As a large portion of this area is in private hands, will not private enterprise touch it, seeing that they would benefit if they did?—The point is that the private people owning this property are so fully occupied with gold-mining in Johannesburg that they do not seem to be able to do anything outside.

1039. They are leaving the irrigation of the land until later, is that so?—Yes, I suppose so.

1040. And when there are no more gold mines, probably the land gold mine will be exploited?—Well, it is too long to wait for that.

1041. **(Mr. Garnett.)** You said a good deal of this land is being held up by land companies. Have you anything to add on this point?—Well, a great deal of development would take place if people could get the land on reasonable terms. But to-day, if a man buys a farm from one of these companies, they probably charge him 10*s*. an acre and very likely they only gave 1*s*. 3*d*. or 2*s*. an acre for it, and in addition to that large profit they retain the mineral rights, and they can encumber the farmers' lands and plantations at any future date if they so desire.

1042. And you think that the effect of charging that price for the land plus the reservation of the mineral rights under the soil acts very detrimentally to the development of the land as an agricultural proposition?—Yes, to a certain extent I think so.

1043. Has anything been suggested to get over that difficulty?—Well, one of the political parties in this country is very strong on the question of the taxation of unimproved lands, but what is to be the result of that I do not know. That is one of the things before us in the future.

1044. The problem of holding up land is one of the things that will press upon you in the immediate future?—Yes, because it retards development. There are a lot of young men growing up in this country who would make good farmers if they could only get that land on reasonable terms.

1045. You say there is at present a class of man desirous of coming on the land who is prevented from getting on it by this private ownership?—Well, I heard indirectly that when this Land Settlement Board was started there were 800 applications and one man got what he wanted; but, of course, I would not vouch for that.

Johannesburg, Friday, 3rd April 1914.

Mr. HOWARD WALLACE SOUTTER, Mr. ALFRED FALKLAND ROBINSON, and Mr. ERNEST CHAPPELL, J.P., representing the Johannesburg Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Post, Telegraphs, and Steamships,"* see *p.* 81, *on "Bills of Lading," p.* 91, *on "Railways, Harbours, and Coal for bunkering and Shipment," p.* 140, *on "Empire Development," p.* 161 *of this volume, and on "Exhibitions,"* see *p.* 124, *on "Statistics," p.* 130, *on "General Trade Questions," p.* 173, *and on "Legislation," p.* 183 *of* [*Cd.* 7707].)

In a letter dated 4th February 1914, *the Chamber had referred, amongst other matters, to the fact that the Commercial Chambers in the Union had repeatedly urged upon the Government the importance of pressing forward schemes of land settlement and immigration.*

Mr. Robinson read the following additional Memorandum on the subject:—

DEVELOPMENT OF THE NATURAL RESOURCES OF THE COUNTRY.

This subject has been referred to in our preliminary statement, but there is one very important point which, if the agricultural development is to adequately progress, must be given the serious and immediate consideration of the Government, namely: the necessity of schemes for the proper conservation of our rainfall, and the promotion of irrigation. It is to the development of agriculture and the raising of stock that not only Johannesburg, but South Africa, must rely upon in the future for its permanent prosperity; that there are enormous possibilities of both is generally admitted. We have a climate almost second to none. We have perhaps cheaper unskilled labour than most of the European countries, and we have in many parts of the country soil capable of producing almost anything. All that is needed is a larger population on the land, which, however, can only be attained if the land is first made capable, by properly organised schemes of irrigation, to carry the population.

1046. **(Mr. Sinclair.)** You lay stress, as so many witnesses have done, on the need for systematic steps being taken to promote land settlement and irrigation?—**(Mr. Robinson.)** Yes.

1047. I am not going into the question with you, because it has been so fully discussed, but I take it that irrigation is the basis of the future agricultural development of your Union?—That is what we think.

1048. And it will specially serve, will it not, to promote small settlement, inasmuch as it will lessen the risk which the small farmer and the man with little capital have to take in respect to drought?—Well, we think that irrigation will bring about such a tremendous improvement in the capacity of the country for growing foodstuffs for stock, that the farmer, in future, will be able to make a very reasonable living out of quite a small piece of ground, when he has a certainty of obtaining winter feed for his stock, while to-day he can hardly make a living out of a very much larger piece of ground.

1049. The existing conditions to-day are greatly against the man with little capital starting on a com-

paratively small area. He really cannot do so and take the risks that he himself must run, as things are to-day?—I think they are almost entirely opposed to that.

1050. **(Mr. Garnett.)** You said you believed that in irrigation lay the future of South Africa. Has the counter proposition—dry farming—been considered at all by you?—**(Mr. Robinson.)** Certainly.

1051. Have you anything to say?—I do not think the Chamber has discussed it at all, but we have naturally been interested in following the various experiments that have been made with dry farming, and I think there is a future for dry farming, but not in the form of making it suitable for the small settler.

1052. In your opinion, this irrigation will have a greater future in this country than dry farming?—Yes. I believe there is a greater scope in this country for the small man, where there is such an enormous amount of rain which, at present, simply runs away to the sea, without any attempt being made to conserve it.

(*For further evidence on this subject* see *Ehrlich, pp. 158–62 of* [*Cd. 7707*], *Vintcent, pp. 171–6, and Edmeades, pp. 189–198 of this volume.*)

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Migration, Land Settlement, and Irrigation.

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APPENDIX I.

Johannesburg, Thursday, 2nd April 1914.

Evidence given by Dr. William Macdonald, author of "Dry Farming; its Principles and Practice," sometime Government Dry Land Agronomist, and editor of the "Union Agricultural Journal," before a Committee of the Commission, consisting of Sir H. Rider Haggard and Mr. Tom Garnett.

(*For evidence of this witness on "Animal and Agricultural Produce," see p. 267.*)

(Witness.) As regards irrigation I would like to emphasise the benefits of deep boring. Some time ago I prophesied that underneath the Kalahari we would find water. The other day on the western border of the desert the Government boring expert struck a magnificent stream of water. My idea is that the whole of that wonderful western country is underlaid with water, and all you have got to do is to put down a deep bore to tap it. Tree planting is also necessary to check soil erosion. It would stop these hot dry winds which are robbing the soil of moisture, and you want to bore in order to get pure water for your stock and for your household. But this is not a country for irrigation.

1. **(Sir Rider Haggard.)** How much land could you put, under irrigation?—A very small amount. The total area of the Union of South Africa is over 300,000,000 acres. The total area at present under irrigation is less than 1,000,000.

Now, gentlemen, I would like to speak briefly in regard to the question of land settlement. Land settlement has never been a great success in this country.

2. What then are the reasons of failure?—To my mind, the first real reason is the want of knowledge, and the second reason is the lack of earnestness in promoting land settlement. It is an amazing thing to me to reflect that the most successful settlement in this country—the settlement of 1820—consisted of only 1,020 men. Well, when you consider that that small number had such an enormous influence upon South Africa so far back as 94 years ago, you can better realise what such settlement would mean for this country if conducted on the lines of Canadian settlement, at, say, 400,000 immigrants per annum. An attempt was made at land settlement by Lord Milner shortly after the war. It cannot be said that the attempt was altogether successful.

3. To what was it due?—It was largely due to the fact that the land chosen for the settlers was not suitable, or, in other words, the locality was not suitable. At that time, shortly after the war, this country was ravaged by that virulent disease which has now almost passed away. To-day we have practically conquered disease because we have conquered the tick. Consequently, there is no reason whatsoever why closer settlement at the present time should not be absolutely successful because nowadays we have a better and fuller knowledge of the climatic conditions of the country. We have conquered the tick and dry farming has revolutionized this country. One thing still remains to paralyse our country. It is the large farm. Many farmers in South Africa are suffering from the fatal curse of the large farm. In the Transvaal, the average size of a farm is 5,000 acres; the average farm in the United States is 143 acres; in England 66½ acres; and in Belgium 14½ acres.

4. On one of these large farms in the Transvaal, how much land will you find under cultivation?—Perhaps 10 acres, 20 acres or 50 acres or, at the most, 200 acres. In other words, a small percentage of the total holding. There is another thing we suffer from—locked-up land. On the one hand we have the Government holding 46 million acres of magnificent land and growing practically nothing upon it. The Crown lands of the whole Union amount roughly to 46 million acres. There are 20 millions in the Transvaal, and there are 10 millions in the Zoutpansberg, the richest and best developed land in the British Empire.

5. How much of that land is free from malaria?—It is impossible to say, but probably about one-half. Not long ago we had Surgeon-General Gorgas in this country. He appeared to think that South Africa was a country from which malaria could easily be eradicated as has been done in Panama.

6. **(Mr. Garnett.)** I think it is one thing to abolish malaria in a narrow strip like the Panama Isthmus and quite another thing to abolish it in an enormous area as you have got here?—I wish to make a strong point of this problem. I do not think that the question of malaria is any excuse for the locking up of some of the finest land in the British Empire. I have noticed that some of the witnesses before the Commission have stated that capital is necessary for South African farming. My opinion is that character comes before capital, and that you will never develop this country if you are going to depend upon men with capital. Men of capital, large capital, are holding huge areas in this country, and what have they done in the way of development? The men who should be brought to this country are the Scotch crofters and the English peasants, poor men, honest men, hard-working men, men who, if you give them a small piece of free land will be satisfied to work hard and improve their farms, and make their homes in this country.

7. **(Sir Rider Haggard.)** How are such men to settle and subsist on a patch of poor veldt?—If our people were really in earnest, there are many ways by which we could settle such men in this country. For example, since I have left the Government service many farmers have said to me, "We will take your Scotch "crofters and we will give them a small house, pay them "a small wage and we will give them some sheep or "cattle, and the run of our land." There are men to-day who have begun with nothing. Take the farmers of Natal; many of them are wealthy men to-day, some of them worth hundreds and thousands of pounds sterling, and those men in many cases started with next to nothing.

8. After some experience of those immigration problems, I cannot understand how you could bring agricultural men from Norfolk, without a sixpence, and expect them to make a living on a piece of poor veldt.

9. **(Mr. Garnett.)** I think I may say that we have not in our minds the development of the land by great capitalists, but, rather, we would like to know how is the man with a few hundred pounds to come here and get his experience of the country before he risks his money. The great capitalists who hold blocks of land are entirely outside of the scheme altogether. It seems to us that the man with small capital would starve before he could get any food?—If the Government of this country were really in earnest about this matter of land settlement and immigration, the first thing they could do would be to choose the immigrants carefully, give them assisted passages and allow them to remain for, say, two years free of cost on the Government Experimental farms in order to get local experience. There are now a great many Government farms. There are stud farms, sheep farms, fruit farms, and stock farms. What is being done with these farms? Little, in comparison to what might be done. The tax-payer is paying heavily for the up-keep of these farms. This country is spending three-quarters of a million pounds sterling on agriculture—a higher percentage per head of population than any other place in the world—and South Africa is not going ahead because there are too few people in it. Another point is the pressing need for advertising. Last year when I was in England I found it impossible to get reliable agricultural information about South Africa. There is little or nothing to be had in the High Commissioner's Office, or in the Trade Commissioner's Office. You pass across the street to the offices for Canada or Australia and you can get any amount of information. Now there can be no doubt that we should advertise our country. The finest work in this direction in South Africa has been done by Mr. Tatlow, the Manager of the Publicity Department of the South African Railways. That is due to the broad, far-sighted outlook of the General Manager of the South African Railways, Mr. W. W. Hoy But what is the use of this internal advertisement of South Africa when we have no land to offer for settlers from oversea. To develop your land you must build new railways. But what is the greatest thing in modern agriculture? It is not dry farming; it is not irrigation—it is railway-building.

10. But how can you obtain money for fresh railway schemes unless you bring in people to cultivate your waste lands?—Many people in this country tell you that we should develop our country by means of the poor whites, but the poor whites are a mere handful of people. What we really need and what we must continue to work for is to bring into this country, say, 100,000 good, hard-working, capable colonists. Is it not a shame that this splendid country last year should have lost a thousand more men than the number of the immigrants who came in? Can a country such as ours, with its wonderful resources, be said to be advancing under these conditions? The future of the country depends upon one thing and one thing only, and that is population. If we were to bring in a vigorous population we would soon change all that by tree planting, by fencing, and by grazing. For example, take our veldt. The moment that you stock it you tend to improve it, and then you can grow new and better fodder for winter feed. Sir Percy Fitzpatrick, one of the best of our dry farmers, has more than 2,000 acres of excellent pasture grasses. Again, there is no doubt that the heavy rainfall on that grass does not do such injury to the soil as it would falling on the hard-baked veldt. The practical solution of all our present agricultural hardship is an increase in the right kind of population.

11. **(Sir Rider Haggard.)** Are you aware that there is no great class such as you desire to draw upon in the British Isles; are you aware that that class has already been exploited, and all who remain of men and women go to Canada and Australia: that the agricultural labouring class has, you may say, petered out? Do you know that?—I know well that the great mass of my countrymen are going in their tens of thousands to Canada and Australia; but I am equally certain that if I had the land to offer I could get a thousand sturdy Scotsmen to come out here; and it is worth while to remember that only a thousand settlers in 1820 transformed the whole of the Eastern Provinces from a wilderness to a veritable garden.

12. **(Mr. Garnett.)** I also wish to point out that as regards the Continent of Europe—northern Europe has ceased to be an emigrating country, the class now drawn upon are Lithuanians, Scandinavians, Italians, Poles, &c., all that class. That is the class that the United States and Canada are drawing upon; what result it may make we cannot yet tell, but the fact remains that northern Europe is practically a closed book so far as emigration is concerned. The result of all inquiries tends to show, that the class which you evidently desire is extremely limited, that the time has almost gone by; or in other words, you in this country have lost your market.

13. **(Sir Rider Haggard.)** I take that what you want, Mr. Macdonald, is, afforestation and population, but that your most pressing need is population. I ask how much population the Union can carry?—A hundred million people. So far as irrigation is concerned there are enormous possibilities in the building of small dams, but I also hold the opinion that there should also be a large national irrigation scheme, so far at least as the Free State is concerned.

14. **(Mr. Garnett.)** I rather gather that you personally would back, so to speak, dry farming against irrigation?—In reply to that I would state that the possibilities of dry farming are greater than the possibilities of irrigation over the whole area of the country. But, of course, land under irrigation will yield twice as much and more per acre than land under dry farming. South Africa must mainly be a country where dry farming is carried on. It can never be a great irrigation country, because, in the first place, we have not the natural topography, and secondly, we have not many great rivers. But every farmer should endeavour to conserve the storm-waters by means of small dams. Consequently, every farmer should be both a dry farmer and an irrigation farmer.

15. Has the Government any great water conservation works?—The Government is doing a great deal to press forward irrigation in the different Provinces, but they have not yet taken up a big single irrigation scheme such as, in my opinion, should be adopted in the Free State in connection with the Basutoland

mountains. The Government deserve much credit for what has been done so far as irrigation is concerned, but I do think that there should be more of what I might term preaching the gospel of irrigation to the ordinary farmer. I consider the experts in the Department of Irrigation should spend more time in the veldt than in their offices.

16. It has been represented to us, in reply to a question as to the irrigable land on the Orange River, that it is useless to irrigate unless you have railway communication. That refers, of course, to the distant lands, because although irrigated it would be difficult to dispose of the produce? If you are going to have successful close settlement under dry-farming or irrigation, the alpha and omega is railway communication. There is no use of irrigating land unless you have the railway first, and then you can be certain of marketing the produce of the settlers.

17. Have the attractions of the mines for capital and the richness of the return been, or will they during their life be, an obstacle to capital being invested upon the land? Are not the keenest brains and intellects at the present moment directed towards the mining industry?—No doubt the mines have attracted a very able class of men, but it is a remarkable thing that in South Africa a larger proportion of men are directly or indirectly interested in farming than perhaps in any other part of the world. The mining men are all interested more or less in farming. Several of them have put their sons on the land and they are working for the development of the land. But there is no doubt that much more could have been done both by the Government and by the mines. Something should be done to make it possible for the miners on the Rand to get small holdings for themselves and their families. We shall never have industrial peace until we make our people happy and contented, and I do think that, in this connection, both the Government and the mine-owners might have done something ere now.

18. Would you agree with this as a general proposition? However rich the mines may be, however long their life may be, every day that passes makes them more and more a dwindling asset, and that it is extremely important that the primary productions of the soil should be increased to such an extent that when the last ton of ore is mined you will be in a position to have an export trade from the primary productions of the soil which will take the place of the mines when they no longer exist?—I quite agree with that. We should endeavour to do what California has done. The present agricultural productions of California, if I mistake not, are now five times as valuable as the largest output of gold from the mines in the zenith of their production. We should press forward with land settlement, but we can do nothing with the land until we get more people, and the great need of South Africa at the present moment is population.

APPENDIX II.

Johannesburg, Friday, 3rd April 1914.

Statement of Mr. William Palmer, Lands Department, Messrs. Lewis & Marks, to a Committee of the Commission consisting of Sir Rider Haggard and Mr. T. Garnett.

Mr. Palmer stated that Messrs. Lewis & Marks control a considerable area of land, mainly in the Transvaal, under the name of the African and European Investment Company, Ltd. The total area held amounts to 1,320,000 acres, divided into 209 farms.

The Lands Department of the Company was organised in November 1913; since that time there has been considerable demand for farms from South Africans, but no steps have so far been taken to introduce suitable setlers from Great Britain. The Directors intend to do so, when the time appears ripe for such action. About half the area held is settled.

The Company offers land under a five years' lease with option of purchase at any time during that period. The option may be exercised by buying the farm outright or by paying 25 per cent. of the purchase price, payment of the balance being spread over a further period of five years at 6 per cent. interest per annum. The terms of the lease provide for effective occupation of the land, and require, amongst other improvements, the planting and cultivation of at least five fruit trees, and 50 forest trees during each year of the lease. The Company is prepared to give financial assistance for the erection of farm buildings and for well-boring, &c. At the end of the lease, if the tenant has not purchased the farm, the option to buy under the original agreement lapses; any improvements effected by the tenant are taken over at valuation. The Company also leases farms suitable for stock and agriculture to tenants who do not desire the option of purchase. There are still a few tenants on the old system of leasehold, under which no cash rent is paid, but the lessee gives one-third of the produce to the owners.

Mr. Palmer stated that the average selling price of the land was from 15*s.* to 30*s.* per acre—in some cases more, the value being dependent on locality. The land being offered at 10*s.* an acre in Rhodesia was on the whole not so fertile.

Very few tenants are anxious to buy outright; they have not sufficient money. Tenants with experience are preferable, in Mr. Palmer's opinion, to tenants with capital, although some capital, at any rate in the form of cattle, was necessary. Owing to risk of loss from disease, the Company does not issue stock to settlers. For settlers from overseas, a capital of at least 1,000*l.* is desirable before starting farming in South Africa. Mr. Palmer advocated the reduction of steamship and railway fares in order to induce farmers to settle in South Africa.

The farmers are going in largely for mixed husbandry, cattle-raising and growing maize and kaffir corn. In the north tobacco is grown; cotton-growing has so far been scarcely attempted.

Mr. Palmer considered that there was a very promising outlook for breeding mules and horses, and advocated Government assistance in developing an export trade, especially in army mules and remounts for India. Sheep-breeding is not carried on to any large extent in the Transvaal, but a large number of sheep have been introduced into the Free State from New Zealand and Australia with considerable success.

The flow of water in the bore-holes on the farms of the Company has been decreasing, and Mr. Palmer considers that the great problem before South Africa is the proper conservation of the water supply. Irrigation was more profitable than dry farming, in so far as it permitted ostrich breeding; otherwise the profits from the best form of dry farming were as good as from irrigated land.

Mr. Palmer put in the following statements as to the cost of growing wheat, maize, and oats in South Africa, and the profits realised:—

COST OF PRODUCTION OF WHEAT, MAIZE, AND OATS IN SOUTH AFRICA.

10 years average—native labour 50*s.* per month.

Conditions.—High and middle veld, dry lands. Soil—average quality.

Wheat:—
Average crop—4 bags (200 lbs.) per acre or 20 bags to 1 sown.

	s.	*d.*	
Ploughing	5	0	per acre.
Harrowing and planting	2	0	,,
Seed	5	0	,,
Fertilizer	20	0	,,
Twine and cutting, 1*s.* 6*d.* Stacking 1*s.* Threshing 4*s.*	6	6	,,
Bags	2	4	,,
	40	10	,,

= 10*s.* 2½*d.* per bag.

Oats:—
Average crop—4 bags (200 lbs.) per acre or 12 bags to 1 sown.

	s.	*d.*	
Ploughing	5	0	per acre.
Harrowing and planting	2	0	,,
Seed	5	0	,,
Harvesting and threshing	6	6	,,
Bags	2	4	,,
	20	10	,,

= 5*s.* 2½*d.* per bag.

Maize:—
Average crop—6 bags (200 lbs.) per acre or 150 bags to 1 sown.

	s.	*d.*	
Ploughing	5	0	per acre.
Harrowing and Planting	2	0	,,
Seed	1	0	,,
Cultivation of crop	3	0	,,
Fertilizer	6	0	,,
Harvesting	3	0	,,
Threshing	3	0	,,
Bags	3	6	,,
	26	6	,,

= 4*s.* 5*d.* per bag.

COMPARISON OF COST OF PRODUCTION ON FARM AND PUBLISHED PRICES.

July 1913.

	Cost per Bag.		Market Price.		Gross Profit. Per Bag.		Gross Profit. Per Acre.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
Wheat	10	2½	22	0	11	7½	48	6
Oats	5	2½	14	8	9	5½	37	10
Maize	4	5	11	0	6	7	42	6

In the case of wheat and oats, the crops should be credited with the winter grazing, while the threshed straw has some feeding value. In the case of maize, the stalks may be worth up to 10*s.* per acre, when fed off.

APPENDIX III.

STATEMENT BY MR. CHARLES ALBERT MADGE, LAND MANAGER OF TRANSVAAL CONSOLIDATED LAND AND EXPLORATION COMPANY, LIMITED.

I am only in a position to deal specifically, as far as figures are concerned, with the affairs of the company of which I am the land manager. It is, however, the company owning the largest area of land in the Transvaal, and is in many general ways typical of other land companies.

The company was formed in 1893—at a time when South Africa, and perhaps particularly the Transvaal was popularly supposed to be studded with a prodigious number of hidden mines of exceeding richness; and for many years there was very little attempt, and small inducement, to develop its landed assets as farming propositions. During the last ten years a serious effort has been made in this latter direction, and beneficial results, to the country and to the company, are beginning to be realised.

The area of the land owned on the 31st of December last amount to 3,167,613 acres, in addition to which the company held mineral rights over a further 274,275 acres.

By far the greater portion of this land is situated in the more outlying parts of the country, where means of communication are peculiarly lacking, where there is very little European occupation, and where agricultural development—in the few places where any exists—is still in its initial pioneering stages. The company has assisted considerably in bringing these areas to the state—primitive as it may still be—of development and occupation which has so far been reached. Experimental agricultural and pastoral farming operations have been initiated and carried on at a number of centres, and these operations have of recent years aided materially in bringing about the beneficial European occupation of a steadily increasing area of land.

The area of the company's land held under lease, or otherwise beneficially occupied, by Europeans at the present time amounts to some 416,000 acres; in addition to which there are a considerable number of trading stands, &c., most of the tenants carrying on stock-farming operations on the adjoining land. Apart from this a large aggregate area of land, the greater portion being remote from the railway and in those parts in which European occupation is in its infancy, is occupied by native tenants.

Ten years ago the area of the company's land occupied by Europeans was negligible; but since then occupation has steadily and consistently advanced. During the first few years of the pioneering work many of the company's tenants barely overcame great difficulties in establishing themselves. The position has now to a great extent changed; and since January 1st, 1912, the company has sold approximately 224,000 acres, a considerable proportion of which was purchased by tenants, and representing 51 distinct sales. This land has been purchased for *bonâ fide* farming purposes, and brings the total area of the company's land brought under beneficial occupation during recent years to approximately 640,000 acres. The total sum realised by the sale of the 224,000 acres amounted to 128,288*l.* 7*s.* 1*d.* The terms of payment are as a rule one-fifth of the purchase price in cash at the time of purchase, and the balance, bearing interest at the rate of 5 per cent. per annum, in five to eight equal annual instalments. The mineral rights are in the case of all sales reserved by the company, provision being made for the full protection of the rights of the purchasers in the event of prospecting or mining operations taking place.

The most usual period for which land is given out on lease is for seven years, with an option to purchase either at a fixed price during the lease or at a price to be agreed upon at its termination. The rentals are very low to commence with, and increase by a moderate amount during each succeeding year; the matter of rental being, therefore, of small consideration to the tenant until he has established himself. As an example, many farms of from 3,000 to 5,000 acres in the less settled districts have been leased for periods of seven years at an average rental of 30*l.* per annum, the rentals payable by the tenants being 10*l.*, 15*l.*, 20*l.*, 25*l.*, 35*l.*, 45*l.*, and 60*l.* per annum, respectively, for each succeeding year of the lease. Compensation is paid for improvements at the termination of leases under reasonable and defined conditions. The gross rental received by the company from European tenants during 1913 amounted to 2,662*l.* 10*s.* 5*d.*

I think that the figures given above are sufficient to rebut, so far as this company is concerned, the evidence given at Cape Town by Mr. G. R. Hughes, the Secretary for Lands for the Union. Mr. Hughes stated that the terms and conditions offered by land companies which had come to his notice were, he thought, most illiberal,* and could not compare with the terms offered by the Government in the Land Settlement Act of 1912. He further stated† that, during 1913, 45,745 morgen, of a valuation of 153,124*l.*, came under the operations of the Act as a result of 100 approved applications During this same period the company disposed of 67,794 morgen for the sum of 76,513*l.* The land dealt with by the Government was doubtless better situated and more valuable than the land disposed of by the company, but the figures I have given would hardly bear out the statement concerning land companies made by Mr. Hughes. I merely deal with this matter as it is of considerable importance to land companies that an erroneous idea of the policy adopted by them should not go forth to the world on the authority of a responsible Government official without direct contradiction.

As I have indicated above, the greater portion of the land owned by the company, and this applies equally to the land owned by other companies, is situated in the more remote and sparsely inhabited districts of the Transvaal, where means of communication are primitive and development of every description is in its infancy. From personal observation, extending over a number of years, I am convinced that these districts are capable of great development, and in many parts can be prepared to support a large European population. Cattle ranching on a large scale, for which many parts of the northern Transvaal are eminently suitable, will probably be the next important development. The prospects are equally as good as in those parts of Rhodesia where much capital is now being invested in this direction—and land can be obtained as, if not more, accessible and suitable, and upon as favourable terms.

The growing of maize has shown steady progress both in the quality of the corn produced and the area devoted to its production; and probably in future greater profit—both to the farm and the farmer—will be derived by the sale of meat and dairy produce consequent upon the feeding on the spot, rather than the sales of the maize grown on the farm. Cattle raising and maize production are the two main branches of farming for which great areas of the northern Transvaal have so far been proved to be eminently suitable.

The farming industry of South Africa needs a far greater degree of organisation than it possesses at present, and it also needs an influx of experienced farmers attracted by its possibilities to invest their capital and energy in its soil. To attract the class of newcomers needed, an organised and profitable industry must be offered, and land which can be obtained upon reasonable terms—and at the present time the general knowledge concerning detailed particulars is peculiarly vague. Very active departments of land and agriculture are essential to the material development of the land of the Union.

* *See* Q. 282, p. 16. † Q. 265, p. 14.

A very remarkable general advance has of recent years taken place in the agricultural and pastoral development of South Africa. The country is beginning to give practical proof of the great potentialities of her land—and it only requires a little statesmanship to solidify the results so far achieved, and to build up upon them a flourishing industry capable of attracting men with capital and experience at present in other countries. I realise that what I have stated above consists to a great extent of generalities—for South Africa is a country where generalities flourish and which is only beginning to get down to the bedrock of facts. But behind generalities remarkable developments are in progress, of which the figures I have given in respect of the area of the company's land sold to and occupied by *bonâ-fide* farmers—much of it in districts up to recent years totally neglected for agricultural development—are a not unreliable indication.

A few words concerning the activities of the company in the direction or prospecting and mining operations, with their results, may be of interest. After considerable investigation and prospecting of the company's property, a payable tin proposition was located in 1907 on the farm Groenfontein No. 871 in the Waterberg District. The net results of the operations at the mine since the discovery up to the end of 1913 show a total profit of 145,134*l.* for a total capital expenditure of 64,314*l.*, equivalent to approximately 225 per cent. on the outlay. Thus a total net profit of 80,820*l.*, after repaying capital, has been produced; and the property possesses a valuable plant and fair prospects of further considerable profits. The company also possesses, as a result of its prospecting operations, mineral prospects in the course of development, in respect of which the expenditure stands at 69,877*l.* In addition to the above, a sum of 101,338*l.* had been expended and written off up to the close of 1913 in respect of unsuccessful endeavours to locate payable mining propositions.

The greater portion of the company's land has been thrown open, in terms of the Precious and Base Metals Act of 1908, for public prospecting; and the discoverer of payable precious metals is entitled to the same reward as if the discovery had been made on Crown lands. Special rewards and favourable terms are offered to discoverers of payable base metal propositions on land open for prospecting.

In conclusion, I would add, as a matter particularly pertinent to the investigations of the Commission, that one, and by no means the least important, of the many pressing needs of the Union of South Africa is that of cheap transit by sea and land for approved immigrants, their families and goods.

JOHANNESBURG,
31st March 1914. C. A. MADGE.

Mr. Madge, in the course of an oral hearing at Johannesburg on April 3, 1914 before Sir Rider Haggard and Mr. T. Garnett, supplemented the memorandum printed above with additional particulars on the following subjects:—

(1) *Land Settlement Act.*—Under this Act a man desirous of purchasing land applies to the Government stating the sum for which he can obtain it. The Government has the land valued, and if they approve they buy it and sell it to the applicant. He pays one-fifth of the price in cash, and the balance in instalments over twenty years. A man purchasing land from the Transvaal Consolidated Land and Exploration Company, Ltd. also pays one-fifth of the price in cash, but the balance is repayable within a period of from five to eight years. The same rate of interest is charged by the Government as by the company, but the period within which the balance is payable differs, the Government being in a position to offer better terms than a private company.

Mr. Madge also challenged Mr. Hughes's statement* that lessees of land companies in many cases were

* *See* Q. 282 on p. 16.

dissatisfied with the terms on which they held land and desired to come under the provisions of the Land Settlement Act. Mr. Madge stated that this was the reverse of his experience and that of several other managers of land companies with whom he had discussed the subject. He also asserted that owing to delay and difficulty in obtaining land from the Government, intending settlers came to the land companies.

(2) *Anti-malaria Campaign.*—Efforts to combat malaria, especially in the northern Transvaal, are being made by the South African Anti-malarial Association, of which Mr. Madge is chairman. The association distributes cards containing directions for avoiding malaria, to schools, public offices, and farm houses. The instructions are printed in English, Dutch, Sesuto, and Zulu. The subject is also taught in all the schools in the malarial districts of South Africa.

Malaria is fairly common in certain parts of the Transvaal, but if ordinary precautions are taken there is no danger. In the low-lying districts the whole native population is malarial, and the disease is transmitted to the healthy European. People are now, however, building their houses a certain distance to windward of the tracts.

Investigations are being made with fish which eat mosquito larvæ, but no definite result has yet been reached.

(3) *Cattle Ranching.*—Mr. Madge emphasised the suitability of the Transvaal, especially in the north, for cattle ranching when dipping is properly carried out. In the Rustenburg district three men were started on a small scale with cattle on three different farms. In 1908 9 sixty-one heifers and five cows were placed on these farms; in 1910, a further six heifers and three cows, and in 1913, an additional 44 heifers and 20 cows, making a total of 111 young heifers and 37 cows. At the end of January 1914, the natural increase totalled 351 and after deducting losses showed a net increase of 300 head of stock. Similarly, 100 cows were sent in 1908 to a farm in the Middelburg district, and a further 58 in September 1910. The natural increase to the end of February 1914 numbered 510; the deaths during the six years were 44 calves and 58 cows, but a very large number died in the early days after being shifted from one part of the country to another. Another farm was ravaged some years ago by East Coast fever; this was got under control in 1911. Ninety-two cows and 41 young heifers were sent to this farm in 1912. Up to February 28, 1914, from this stock 162 calves had been born, the total deaths numbering two. In 1912 an additional 100 head of oxen and young stock were placed on this farm; the loss has consisted of one calf. The cattle on this farm are dipped every fortnight.

APPENDIX IV.

Extract from Statement handed in by the Transvaal Agricultural Union.

(*For the evidence given by the representatives of the Transvaal Agricultural Union and for extracts from their statement, on "Animal and Agricultural Produce," "Cotton" and "Fruit," see pp.* 254, 286 *and* 320.)

Attention has been called, by a large number of correspondents, to the increased charges which are now being made for the use of Government boring machines, and it will be readily seen that such an increase, amounting, as it does, to 100 per cent., is likely to deter farmers from making use of one of the most necessary facilities which they formerly possessed, and that the development of agriculture will be thereby greatly retarded.

In the opinion of many correspondents, everything possible should be done to assist farmers in connection with the construction of irrigation works on sound lines, especially where a co-operative scheme would be of undoubted value to a combination of farmers.

Boring Machines.

It is necessary to remark here that the Irrigation Department of the Transvaal has done, and is still doing, excellent work. A large number of boring machines are at work, 17 of which are of South African make, and many of these have been constructed by Mr. Maenamara, of Zuurfontein. For some time past no fewer than eight boring machines have been in constant use in the Rustenburg district. An instance of the value of this work is afforded on the Springbok Flats, where, only a short time ago, only about 10 farmers were struggling to exist. Following on boring by the department, this number has been greatly increased, and the great majority of the settlers are making comfortable livings. In Bechuanaland much useful work has been done, and boring operations are being carried on with success in what was formerly regarded as a portion of the Kalahari Desert and which was known as the Republic of Stellaland, under the Boer régime. In the portion of the Bloemhof district known as Schweizer Reneke, good work has been done, and many farmers who were formerly compelled to trek to the Hartz river with their stock are now in a position to remain on their farms. From personal knowledge it is evident that this area is one full of promise, and during a recent visit of the Secretary of the Union, where a meeting of farmers was held, the chief desire expressed was that the prices charged for boring should be reverted to, in order to enable farmers to avail themselves of the opportunities for securing water which has been proved to exist in such abundance, and which would enable them to remain, in still greater numbers, throughout the year, on their farms, with their stock.

APPENDIX V.

Letter from Mr. F. E. Kanthack (Director of Irrigation).

(*For Mr. Kanthack's evidence, see pp.* 1–6.)

Union of South Africa,
Irrigation Department, Pretoria.
(At Cape Town.)
27th March 1914.

Sir,

With reference to your letter of the 9th instant, asking for an estimate of the total amount of water flowing to the sea in the Union of South Africa annually and of the proportion which could be conserved by means of works, I very much regret that the preparation of such a statement at the present time is impossible.

Precise hydrographic gaugings are comparatively new in South Africa, and whilst very complete gaugings exist for some few rivers in the Transvaal, ranging over a period of seven or eight years, in other parts of South Africa information regarding rivers is either entirely wanting, or is now only being acquired at the present time.

Stream ganging in South Africa is a most difficult and costly operation, as it cannot be done with the ease with which permanent streams in America and elsewhere are gauged, but requires very costly works and apparatus with which to record the amount of water passing over gauging weirs in remote portions of the Union during brief and spasmodic floods.

The Government has for some time past been spending approximately 8,000*l.* to 10,000*l.* per annum on stream gauging, but it will be many years before sufficient information is acquired to do justice to the question which has been sent to me by your Commission.

I have, &c.

F. E. Kanthack,
Director of Irrigation.

Secretary,
Dominions Royal Commission.

APPENDIX VI.

Letter from Mr. F. E. Kanthack (Director of Irrigation).

(*See Mr. Kanthack's evidence, Question* 110, *p.* 5).

Union of South Africa,
Irrigation Department, Pretoria,
(At Cape Town).

Sir, 9th May 1911.

I have the honour to forward herewith certain statements, &c., which I promised your Commission in the course of my evidence.

I regret so much delay has taken place, which is mainly due to the difficulty in obtaining certain information regarding bore-holes sunk in the Orange Free State, the records of which were first thought to have been lost in the Bloemfontein Government Buildings, burnt down some time ago.

Statement I.—Notes on the Census Figures for 1911, regarding the Amount of Land Irrigated in the Union.

In Part IX., Table XI., pages 1,254 and following, the extent of land irrigated in the Union is given as follows:—

	Morgen.
Cape - - -	282,367
Natal - - -	18,671
Transvaal - - -	113,756
Orange Free State -	49,308
	464,102 morgen.

In compiling the above statistics, it is obvious that the returns submitted are either most incorrect in most cases, or that the term "irrigated land" is given most elastic meanings in different districts. It is possible that the figures given for the various Cape districts may not be very far out. I certainly cannot take exception to the result for any particular district. From a good general local knowledge of that Province, they appear to me to be certainly relatively correct. In the Transvaal and Orange Free State, however, the figures are obviously wrong and greatly overstated. The following returns are striking examples of this statement:—

Lydenburg - -	13,662 morgen.
Pretoria - -	14,139 ,,
Rustenburg - -	12,926 ,,

and in lesser degree most of the other districts returned exaggerated totals, and it requires no very great local knowledge of the Transvaal to pick out figures such as these as obviously impossible. Moreover, the district figures throughout the Union for irrigated land are in most cases entirely inconsistent with figures given in other tables of the same volume in the Census Report.

From a superficial analysis, for instance, of Table XVII., it will be seen that in many cases there is a very great discrepancy between the total area under cultivation and the total area under irrigation; thus Lydenburg reports only 11,148 morgen under cultivation, of which nearly 6,000 morgen are stated to be under maize, whereas the figures already quoted show that Lydenburg is supposed to have 13,662 morgen actually irrigated.

The three districts mentioned above are by no means heavily irrigated, and the figures given in the Census Report can, I consider, be discounted as too inaccurate to serve any useful purpose.

The crop returns in Table XVII. support this contention, as the yield from the only crops which could possibly have been irrigated is wholly insufficient to support the figures given in Table XI., page 1260.

As regards the Cape, a rough check on the figures can be obtained by studying the census figures for ostriches. There are reported to be 725,000 in the Cape Province (Table V.) and the great majority of these birds are being maintained on lucerne pasture. Assuming, then, that one morgen of the established lucerne will maintain six birds throughout the year, which is an accepted average figure, there should be something like 121,000 morgen of lucerne in the Cape Province as against 61,174 morgen actually reported. It appears to be that the Cape lucerne area has been under-estimated. My conclusions are briefly that whilst the Cape totals appear to me to be somewhat under-estimated, those for the Transvaal and Free State Provinces are greatly overestimated.

With regard to an estimate of the amount of land in the Union capable of irrigation, I consider it would at the present stage be most rash to attempt to do this. It is going to be some little time yet before it will be safe and politic for me to give an estimate of this kind.

Statement II.—Estimate of the Quantity of Water which has been Developed by Boring in the Union.

Two statements are submitted: Statement (*a*) refers to bore-holes which were drilled by the various Colonial Administrations or subsidised by them prior to Union. Statement (*b*) relates to Government work done throughout the Union since the 1st June 1910.

As regards Statement (*a*), this must be taken only as an approximation. No records whatever are available for the Province of Natal; the Free State figures are incomplete, and in the Cape a certain amount of drilling has been done since the system of granting subsidies was stopped, in respect of which no records whatever exist.

In Statement (*a*), the yield of water from bore-holes in the Cape Province has been taken from Annexure C of the Annual Reports of the Public Works Department of the Cape of Good Hope for 1909–10 and 1910 (partial).

In Annexure "A" (page 114) of that report, it is stated that since 1884, when boring was apparently first started in the Cape, up to the 31st December, 1908, a sum of about 449,690*l.* had been expended on water-boring by means of Government drills, the sale of drills to farmers on the £ for £ principle, subsidy paid to farmers for boring and well-sinking carried out on their farms by contractors or their own drills, and experimental deep boring.

The total yield of water given in Annexure "C," viz.: 54,162,719 gallons, refers to the period 1893–1909 only, no data of results prior to the former year being available.

Subsidised Boring.

The report of the Chief Engineer for Public Works for the year 1907 (page 36) contains a tabulated statement showing that during the period 1904–1907, 3,929 bore-holes, yielding 106,130,446 gallons per day, were drilled for farmers by contractors working under a State-aided system.

Figures are not available for the period 1st January to 30th June 1908, on which latter date subsidised boring as well as work with Government drills, with the exception of one machine in Bechuanaland, was suspended in Cape Colony.

In respect of boring carried out in the Transvaal prior to Union the figures given in Statement "A" include the results and cost of several boreholes drilled by Contractors working under Government subsidy while this system was being tried, but these being a negligible quantity, have not been shown under a separate heading.

Statement "B."

The figures relating to boring since Union have been extracted from the records of this Office and are complete and correct. The results include a few boreholes drilled by contractors, chiefly in the Free State, but these constitute a very small percentage of our work. No boring has been carried out in Natal.

STATEMENT III.—AN ESTIMATE OF THE AMOUNT OF LAND LIKELY TO BE BROUGHT UNDER IRRIGATION IN THE NEXT FIVE YEARS.

It is estimated that the area under development, apart from land actually irrigated, such as is referred to in the Census Report, is approximately 100,000 morgen, and I estimate that the rate at which new works are being undertaken in the Union is adding 50,000 morgen annually to the land already being developed referred to above.

I have, &c.,
F. E. KANTHACK,
Director of Irrigation.

The Secretary,
Dominions Royal Commission,
London.

P.S.—I forward herewith, for the information of your Commission, copy of this Department's Report* for the period 1st January 1912 to 31st March 1913.

F. E. K.,
Director of Irrigation.

"A."

STATEMENT OF WATER OBTAINED BY BORING IN SOUTH AFRICA PRIOR TO 31ST MAY 1910.

Colony.	Period.	Estimated Yield in Gallons per diem.	Cost. £.
Cape—Government drills.	1893–1909	54,162,719	449,690
Cape—Contractors' drills.	1904–1907	38,614,886	
Carried forward -		92,777,605	449,690
Brought forward -		92,777,605	449,690
Transvaal—Government drills.	1904–1910	23,697,600	113,532
Free State—Government drills.	1902–1909	39,186,750	—
Natal - - -	—	—	—
		155,661,955	563,222

Summary.

Cape - - -	92,777,605 gallons.
Transvaal - -	23,697,600 ,,
Orange Free State -	39,186,750 ,,
	155,661,955 gallons.

"B."

STATEMENT OF WATER OBTAINED BY BORING WITH GOVERNMENT DRILLS IN THE UNION OF SOUTH AFRICA SINCE 1ST JUNE 1910.

Province.	Period.	Estimated Yield in Gallons per diem.	Footage.	Cost. £.
Cape - -	1 June 1910 to 31 Jan. 1914.	4,549,000	47,341	29,542
Transvaal -		37,061,000	279,956	206,123
Free State -		761,000	8,818	11,500
Natal -	—	—	—	—
		42,371,000	336,115	247,165

II. COMMUNICATIONS.

(a) Post, Telegraph, and Steamship (including Freights).

CAPE OF GOOD HOPE.

Cape Town, Wednesday, 25th February 1914.

Mr. JEREMIAH WILSON, Postmaster-General of the Union of South Africa, called and examined.

1053. **(Chairman.)** You are Postmaster-General of the Union of South Africa?—Yes.

1054. You have been good enough to prepare some interesting tables* for us. Perhaps you would be able to make a general summary of the main features of interest?—Shall we take the mail section first? I think you wished some information particularly in connection with the mail service to Australia *via* the Cape.

1055. Both as regards South Africa and the possibilities of a joint service between the Cape and Australia.—Taking the South African Mail Contract first; you probably know that it runs from October 1912 to the end of September 1922; that is, for a period of ten years. We pay for the service between Southampton and Cape Town 150,000*l.* a year. We pay, in addition, 21,000*l.* a year in order that the mail steamers may proceed to Durban. The latter payment was made before Union. The Natal Government had paid a similiar sum to attract the mail steamers to that port, and the payment was continued under the new agreement. Prior to Union, we had paid 135,000*l.* a year as a mail subsidy. At that time the Cape Government was entirely responsible for the contract, but the South African Colonies shared the subsidy with

* Not printed.

the Imperial Government on the basis of the use which they made of the service. In the existing contract, certain provisions had been included which did not appear in the previous contract. For example, provision had been made for the exportation of fruit at cheap rates ; for cold storage accommodation, and also for the importation of pedigree stock free of freight. These, I think, are the principal features in which the existing mail contract differs from the previous one. We are of opinion that the existing contract, so far as South Africa is concerned, is a fairly reasonable one, and we feel we have little reason to complain. That is our opinion of the terms generally of the contract. With regard to the speed—a matter which, I believe, you are particularly interested in—the late contract was for 16 days 15 hours—originally 16 days 20 hours, and then reduced after three years. The existing contract is also for 16 days 15 hours, but there are provisions which will enable the Government to negotiate for a quicker speed if that should be found desirable. In negotiating the contract we did not lay very great stress on the question of speed. Our anxiety was rather to secure a regular service, and to obtain other advantages which we did not previously possess. We were successful in getting these other provisions inserted in the contract. I do not know whether I can say any more than that in connection with the contract.

1056. (**Sir Alfred Bateman.**) Were you connected with the Cape Government Post Office before the Union ?—Yes.

1057. I think I remember you giving evidence some seven years ago. You gave us some evidence about deferred rebates and the service generally ?—I think Sir Somerset French gave the evidence.

1058. Were you not with him ?—No.

1059. In your contract you have tried to provide for all those things ?—Yes.

1060. I suppose it would not be in order for us to ask you about the difficulty that has arisen in interpreting the contract, because the matter is *sub judice* ?—I should prefer not to make any statement, seeing that the matter is one for the Arbitration Court in London. I think I may say the Government referred the matter to the Arbitration Board because they felt there was good reason for the complaints that were made. It was an undoubted fact that certain shipments of non-signatories to a particular agreement issued by the shipping companies had been shut out, and the question was, of course, whether such action on the part of the mail contractor was not an infringment or contravention of the Post Office Act. That is for the arbitrators to decide.

1061. But in one respect a recommendation of the former Commission has been carried out—that there should be an association of shippers who would deal with the shipping companies. It is someone outside the association who is now raising the difficulty ?—Yes, as I understand it, there is, in London, a South African Merchants' Committee, but it is held by some on this side that the Committee is not fully representative of South African interests.

1062. There are interests outside ? — Yes, that appears to be the position.

1063. But since this contract has been entered into, there has been some improvement in the freight service to all the ports, has there not ?—I think there has been a slight increase in rates.

1064. There were differential rates before ?—Yes. There are differential rates to-day as between ports—I am speaking from memory—but I believe the rates to Cape Town and Port Elizabeth are similar. To East London I think they are somewhat higher, and slightly higher again on goods delivered to Durban.

1065. In your contract, you did not try to secure this division of traffic, did you—30 per cent. to Durban and so on ?—No, we did not endeavour to do that in connection with the mail contract.

1066. And the difficulty now is simply because preferential treatment has been given to these people—practically—the London Conference of Merchants ?—Yes, to these people who have signed an undertaking by which they would ship all their goods by what are known as the "Conference Lines."

1067. Meanwhile, all the differential rates were done away with ?—Yes, as between shippers.

1068. And was primage done away with at the same time ?—Yes, primage was done away with, except to the extent of 5 per cent. on imports by mail steamers.

1069. I suppose these rates do not come before you, do they ?—No.

1070. You think this contract secures better terms than if you had a contract for short periods with independent lines ?—I think so.

1071. Because there are several competing lines, are there not ?—There are a good many lines—particularly those trading with Australia *viâ* the Cape ; but when we called for tenders in London, we got none from them, as they were apparently not in a position to tender.

1072. If this became the mail route to Australia, I suppose it would put you in a much better position ?—From a purely postal point of view it would be quite convenient. The Post Office is concerned only with the mail service, and so long as we have a regular service and at a reasonable speed, we, as a Department, are satisfied.

1073. I suppose it is absolutely regular ?—Absolutely. I think only on one occasion last year was a mail steamer late, and that particular steamer arrived in England within the period of grace allowed.

1074. Is the mealie contract part of the mail contract ?—It is subsidiary to it—running practically concurrently.

1075. It is the same term ?—Yes.

1076. Are there any other preferential rates ?—The Government have a freight contract for the conveyance of their own materials and stores to this country, which is considered fairly reasonable, as well as special rates for South African produce.

1077. Is there anything that prevents differential rates in favour of large shippers ?—There is a clause in the mail contract which states that small shippers must have their goods carried at the same rate as the large shippers.

1078. And in any question of breach of that, does it come before the Board of Trade ?—No. There is a clause which provides for arbitration before a board to sit in London, one of the arbitrators to be appointed by the Government of South Africa, another by the Shipping Company, and, if necessary, they appoint an umpire between them.

1079. That is the arbitration which is now proceeding ?—Yes.

1080. There is one other point regarding the differential rates. Supposing there was a very low rate from New York *viâ* Liverpool ?—That would not affect us.

1081. That is not provided for in your contract ?—It would not affect our contract in any way.

1082. (**Mr. Sinclair.**) Is the Post Office on the Union-Castle Steamers regarded as the Post Office of the South African Union ?—It is jointly run by the Imperial Post Office and ourselves ; we share the cost in equal proportions. The officers in charge are Imperial Officers.

1083. And letters that are put in outside the three-mile limit may be stamped with the stamps of either country ?—Yes.

1084. Is there to your knowledge any tendency on the part of the officers on these steamers to create the impression that only South African stamps should be used ?—I am not aware of it.

1085. I ask the question, because when letters were posted outside the three-mile limit at Madeira, there was a disposition to suggest that only South African stamps could be used ?—I was not aware of it.

1086. The query was made as to what stamps should be used, and the reply was given that stamps of the South African Union were the proper ones to use. Now the English stamp carries greater weight, does it not ?—That is so.

1087. You are not aware of an attempt to create such an impression ?—No.

1088. Well, I suggest that it exists?—I did not know of it.*

1089. (**Sir Rider Haggard.**) One can only send from South Africa half an ounce for one penny?—Yes.

1090. The Postal Union allows an ounce?—Yes.

1091. What is the object of the half-ounce limit: does it make any difference really in the cost of conveyance?—Yes.

1092. Is it much?—It makes a very great difference in the revenue. There is a provision in the Postal Union Convention whereby countries who have not been able to adopt the ounce unit may still maintain the half-ounce unit, and South Africa is one of those countries. The decreased revenue is not merely as regards over-sea postage; but in respect of inland postage as well. Our unit in South Africa is half an ounce. So it comes to this: if we were to alter the unit of weight for over-sea correspondence, we should have to alter the unit for the whole of South Africa correspondingly. That means a very serious financial loss to the Union, which, up to now, we have not been able to face. We have been constantly reducing rates in one direction or another, but we are not yet in a position to bear the loss referred to. The matter will come up again no doubt at the next Postal Union Congress at Madrid in September, and the question arises whether that Congress will further extend the time during which countries may still maintain the half-ounce unit. In a country like this, where the postal revenue is not nearly so large as in countries with a denser population, and where distances are so great over which mails have to be carried, we are not in the same position to increase weights and still maintain the same rates as older countries.

1093. If I suggested that the object was to make people use extremely thin and inferior note paper, and to make writing thereby very illegible, I should be wrong?—That is another way of looking at it.

1094. Then as regards the possible route for mails *viâ* the Cape to Australia, you as a Post Office are scarcely concerned in the matter?—We are very little concerned.

1095. Do you see any prospect of any great increase in the speed of the mails between this country and England?—I think that the increase of speed will have to come rather through the passenger requirements than the mails.

1096. I think that nearly forty years ago, when I came out to South Africa, the time taken was a month to reach Natal, and now you come here in sixteen days. Do you anticipate any corresponding acceleration in the future?—It would be very difficult to say. No doubt we shall get some.

1097. Would it be desirable and advantageous to have an acceleration?—I think certain of the travelling public would wish to have quicker communication.

1098. (**Mr. Garnett.**) Your contract provides against differential rates as against goods?—Yes.

1099. We have had instances in various places of goods being shipped at a through rate, say, from Hamburg right away through, at considerably less than goods of the same class carried from London in the same ship. Have you had any complaints?—I have not.

1100. Would your contract cover a point like that?—No.

1101. That would be a matter for the persons themselves?—Yes.

1102. (**Mr. Tatlow.**) Did I understand you to say that the present contract includes provision for increase of speed?—Yes.

1103. Does it include the terms?—There is one provision which states that if the period of time is reduced to 16 days we shall pay the Company the sum of 19,000*l.* That is the limit.

1104. Does the contract provide for further reduction?—There is a general provision which makes it possible for the Government to enter into negotiations for further reductions. It is a matter of mutual agreement.

1105. Do you think that the present time gives general satisfaction?—Yes, I think so on the whole. There are certain people who desire to travel quicker, but I believe most people are fairly well satisfied.

1106. If you did alter the postage rate to one ounce instead of half an ounce, have you any figures to show what the loss would be on the present basis? Is it a fact that the great proportion of letters are under half an ounce?—Well, that is a matter which has been looked into from time to time, and I remember there was a conference in Cape Town of the different Postmasters-General a few years ago, and at that time it was considered that the loss would be something like 35,000*l.* The mail service has grown since then, and while I am not prepared to speak definitely, I feel certain that the loss would be well over 40,000*l.* a year.

1107. I think you said that the present contract included provision for the carriage of mealies?—There is a subsidiary contract.

1108. Was that of very substantial benefit? Was the rate previously much higher than 10*s.*?—The former rate was 11*s.* 6*d.* per ton of 2,240 lbs. as against the present rate of 10*s.* per ton of 2,000 lbs., but the shipping companies had been seeking to raise the rate to 14*s.* per ton of the higher weight. The arrangement also gave the South African producer stability of rates, which is a thing he was rather keen to have.

1109. Is that 10*s.* secured for the whole term of the contract?—Yes.

1110. There is no chance of an increase at all?—I think not.

1111. There are no contingencies?—I am not positive.

1112. (**Chairman.**) I understand that you pay 171,000*l.* a year altogether as a subsidy?—Yes.

1113. Does that frank any amount of mail matter?—Yes.

1114. Both ways?—Yes, both ways.

1115. Against that I suppose you have certain receipts from the English Post Office?—Yes. The South African mail contract is arranged in this way—the contract is made by the Union, but the Mother Country contributes to the cost of the service on the basis of the use made of the mail steamers. By that means the Mother Country contributes a net amount of something over 60,000*l.* a year.

1116. At what rates is that calculated?—At the Postal Union rates for this purpose. South Africa provides the rest of the money, that is to say, the Union of South Africa and Rhodesia with a small payment by the Bechuanaland Protectorate. All receipts which come from foreign countries and also those which come from the carriage of parcels to and from the United Kingdom are paid into what is called the pool account. The money thus received is deducted from the total payment which would require to be made by the Imperial Post Office and also by the Union of South Africa and Rhodesia. That is how the thing is arranged.

1117. So that when the net amount is arrived at, what does the Union of South Africa pay out of the 171,000*l.*?—I think it is 38,000*l.*, plus 21,000*l.*, making a total of roughly 60,000*l.*

1118. And for that it gets any amount of mail matter franked which it chooses to send?—Yes.

1119. Compare that system with sending mails at poundage rates; how would it come out?—I am not certain whether you are referring to the Postal Union rates.

1120. I understand there are two rates,—the Postal Union rates and what is term in England the statutory rate?—Yes. The statutory rate would be very much cheaper. We call it the private ship rate.

1121. Under the statutory law you can send mail matter by any ship sailing, I presume?—Yes, English or foreign.

1122. At a certain rate per pound?—Yes.

1123. Could you give me any figure to show what is the rate, or what it would work out at?—Yes, I could.

1124. It would be interesting to have that?—That is from South Africa?

* The witness subsequently informed the Commission in a letter dated April 8th, 1914, that the question of the sale of British stamps on board mail steamers was under consideration.

1125. Showing how that system would work compared to the present system from a pecuniary point of view?—Yes.*

1126. In this mail contract of 1912 you obtained some valuable concessions, I believe. Can you tell me in what way this contract differs from what you desired to obtain? Were there any points that you had to abandon?—No, I do not remember any point. There was a good deal of negotiation around the amount of the subsidy, but I think we got pretty well all we wanted otherwise.

1127. But you had to pay rather more for it?—Yes.

1128. With regard to higher speed, is there anything definite in the clause inserted, as it seems to me to be rather vague?—There is nothing absolutely laid down. There is only a provision made that the contract can be altered in that direction.

1129. Subject to a new agreement accepted by both parties?—Yes.

1130. It really only means that the matter can be again discussed between you?—Yes, that is so.

1131. On the question of speed, it has been said that although you get greater regularity now, the period taken on the voyage now is very little, if anything, better than the time taken fifteen years ago, and that passages used to be made in the same time, or even less, by ships. Is that so?—We have one famous case, in which the "Scot," belonging to the Union Company, came out under 15 days.

1132. Did not a rival ship come out in the same time?—I think one other vessel came out under the contract time. It was said that the "Scot" burnt an enormous amount of coal.

1133. But you would not base any argument upon that, even taking into account the progress of the art which has taken place?—I think that as science progresses the speed will become greater up to a certain point. But, as I said before, I think the passenger requirements will rather dictate the speed than the mail service.

1134. Then, as responsible for the mail service, you are prepared to let the passengers fight it out with the Company themselves?—I can hardly say that, but that is certainly rather the consideration.

1135. Under clause 53, the company undertakes to place orders for two new mail steamers, and during the currency of the agreement to provide at least six new mail ships?—Yes.

1136. Have you got any particulars as to the two ships now ordered?—I am unable to give any. Two new ships have been recently placed on the East Coast route.

1137. It provides that immediately after the ratification of this agreement the Company will place orders for two new mail ships?—I understand orders have been placed.

1138. Referring to a previous question, is it the case that the post office on board the mail steamers should accept English stamps?—Yes. I understand they are supplied with them.

1139. You might look into it?—I will make a note of it.

(**Mr. Sinclair.**) I used English stamps, and on being told it was wrong, I placed South African stamps over them.

1140. (**Chairman.**) I want to refer to clause one of the Mail Contract. Can you tell us what the bearing of that clause is?—Clause six of the Post Office Act is the one referred to in the contract. I will read it. It states that the Governor-General may enter into contracts in writing with any person for the conveyance by sea of postal articles to and from the Union beyond the limits of South Africa. The Governor-General shall not enter into any such Ocean Mail Contract with any person who is connected either directly or indirectly with any such shipping or other combination as the Governor-General may deem to be detrimental to or likely to affect adversely South African trade or industries or gives, offers, or promises to any person any rebate, refund, discount or reward upon condition that such person shall ship goods by vessels of such lines to the exclusion of any others. It says further that the Governor-General may make regulations as regards dock, wharfage, tranship, or other like dues at any port or harbour of the Union on goods transhipped from vessels owned or chartered by such persons. (*Quoting from Act.*)* The reason for these provisions was, of course, to strengthen the Government in dealing with the rebate system. You will see that power is given to the Government to differentiate against persons who do not observe these provisions. That is to say, as regards the treatment of their vessels at the ports, which would make it practically impossible for them to live.

1141. (**Sir Alfred Bateman.**) I understand that the Government has the privilege of rates for Government shipments?—Yes.

1142. Was there any opposition to that on the part of merchants?—I do not remember that there was active opposition, but the Government had lower rates than the merchants for some considerable time before.

1143. As I understand, the merchants consider it encourages the Government to get stores from home?—I think the great bulk is railway material, and, naturally, that could not be supplied here.

1144. Surely there is a good deal that could be supplied here? But you say there has been no opposition?—I have not observed any active opposition to the Government freight agreement.

1145. (**Sir Rider Haggard.**) Turning to that matter of the Post Office on the steamers again, is there any possibility of the stewards benefiting by giving inaccurate information?—None whatever that I am aware of.

1146. I myself had a fairly heavy letter, and instead of putting 1½*d.* on it, I had to put 5*d.*?—I presume you stamped the letter yourself?

1147. Yes.—Well, in that case, I do not see how anyone could benefit.

1148. (**Mr. Sinclair.**) The Postal Union rate per ton is about 300*l.*, is it not?—322*l.* for letters and post cards.

1149. Do you consider that reasonable?—As compared with the freight rate it is very high—that is for letters. The carriage of other mail matter is one-eighth of that, or 40*l.*

1150. I would just like an expression of your views?—The postal service requires the steamers to leave on a given day. They must sail by a particular route. They must sail whether full or empty. I presume all these points were taken into consideration by the Postal Union in laying down their rates of transit.

1151. In the result you do not consider the rate is unreasonable?—They have been reduced periodically. Not many years ago the rate was 15 francs per kilogramme and now it is 8 francs, and there are certain countries which have not to provide any ocean mail service, and which are constantly asking for reductions.

1152. In regard to passenger rates by the mail steamers, having regard to the rates charged by other lines, do you think they are reasonable?—I think them fairly reasonable, compared with other lines.

1153. Do they compare well with the passenger rates charged by other lines of steamers between the Cape and London?—I think for first class passengers they are practically the same, but I have no precise information on that point in my mind.

1154. (**Chairman.**) I gathered from you that by the statutory rate, you have also a fixed day. That surely is not so. Under the statutory rate the mail is sent off by any steamer that happens to be leaving?—It is only steamers under contract and to which a subsidy is paid that have to leave on a certain date and at a certain hour. Where the statutory rate, or private ship rate, is paid the ship leaves when she pleases. She must give us 24 hours' notice of her departure, however.

1155. Does the private ship rate work out at 300*l.* a ton for letters?—No, at very much less, 112*l.* We pay in the Union 1*s.* per pound for letters, 2*d.* per pound for printed matter, and 3*d.* per pound for parcels.

* The statement was supplied subsequently by the witness (*see* Appendix I., p. 84).

* *See* note to Mr Jagger's evidence, p. 62 (second column).

1156. In regard to cables now : Would you please make a statement ?—I submitted a memorandum* in connection with the cable system, in which I pointed out that the first cable was laid down to South Africa in 1879.

1157. I will not trouble you to go into the historical portion of the subject, but more with regard to the rates ?—The ordinary rate to the public has been brought down from 8*s.* 9*d.* to 2*s.* 6*d.* The Government rate of 6*s.* 3*d.* has been reduced to 1*s.* 3*d.* In 1912, the Cable Company introduced a system of deferred cables, and those are transmissible at half rates. They can be sent to Europe at 1*s.* 3*d.* a word. Then, later in the year, they introduced the week-end letter telegram. That has a minimum of 15*s.* for a telegram of 30 words and 2*s.* 6*d.* for each five or part of five additional words. The Press rate has been reduced from 9*d.* to 3½*d.* a word. There is an agreement existing between the South African Governments and the Eastern and South African Cable Company at present, under which a subsidy has to be paid unless the revenue reaches 300,000*l.* per annum. Since 1906 that revenue has not been reached, and the latest figures I have go to show that the present earnings in respect to the South African traffic are 273,000*l.* a year. So that really since the war there has been a decreasing traffic and decreasing rates. In 1900 the rate was 4*s.* and the value of the traffic 457,000*l.* Then the rate came down to 2*s.* 6*d.* in 1903 and the value was 391,000*l.* That rate has not been reduced and to-day the Company's receipts are 273,000*l.*

1158. It involves a subsidy of how much ?—To-day a subsidy of 13,500*l.* per annum, terminating in 1919. So that, having regard to the fact that the traffic has been continuously going down and that the standard revenue agreed upon at the time the agreement was entered into has not been reached, it does not seem that the time is opportune for asking for further reductions in rates.

1159. (**Mr. Sinclair.**) Do you consider that this reduction is temporary ?—I think that when the receipts exceed 300,000*l.*, we should certainly look for a reduction.

1160. Have you ever considered the matter from a rather broader point of view ? Has it occurred to you that if there was a large reduction in cable rates there would be a corresponding increase in the use made of the service by the public ?—I think that would be so, but then the cable expenses would also increase.

1161. You mean while that result was being realised ?—Yes. It stands to reason that if you are going to transmit two messages instead of one there would be greater expense in the way of staff, for one thing.

1162. Could you tell us how much of the available carrying capacity of these cables remains unused at present ?—I am not in a position to give that information, but I understand that the load on the South African cables is fairly level throughout the 24 hours.

1163. Suppose the cables were worked to their fullest capacity, how many more words could be sent in the 24 hours ?—I am unable to state that.

1164. Could you give us any idea ?—I have no idea.

1165. You do not know if they are being worked to the full capacity ?—I could not say.

1166. (**Sir Alfred Bateman.**) Are these facilities for deferred and week-end messages well advertised ?—Yes, I think so, We advertise it in the Post Office Guide and through the Press. The deferred cablegrams are referred to on the back of the forms. We have a card which we hang in the Post Offices.

1167. If anybody enquired, the Post Office officials would tell them at once ?—Yes ; I think it is fairly well known. It seems to be growing.

1168. Can you give us any figures ?—I can give you some figures as regards the deferred traffic which has gone over the Post Office wires.

1169. Perhaps you would send them in ?—Yes.

1170. (**Chairman.**) I think it would be well if you gave the progress of the deferred and week-end telegrams month by month ?—I will endeavour to do so. I do not know whether I can give the figures month by month. However, I can give the traffic in 1912 and 1913. Week-end telegrams were only brought into operation in November 1912. As regards deferred cablegrams, there will be two years' figures available.*

1171. In regard to the night cable-letters, you have not discussed that as a further facility ?—No, not the night cable.

1172. Now, in regard to receipts for deferred and week-end telegrams, are you in a position to say how much is traffic newly created and how much is diverted from the old full rate ?—No.

1173. You have not formed any personal view ?—I think that both systems have created new traffic.

1174. This Commission recommended certain facilitations in regard to week-end messages to and from Australasia, that they should be sent by telegraph throughout, and that the public should not be asked to pay for service indications ; also, that the minimum number of words should be reduced so as to make the charge for week-end telegrams considerably less than it was. Have you any views ?—In connection with week-end cablegrams, I think the minimum rate might be reduced. A reduction from 30 to 20 words and a charge of 12*s.* 6*d.* instead of 15*s.* has been suggested ; also, that the charge for additional words should be at a rate per word instead of per five words. I am also in favour of the week-end telegrams being telegraphed all the way, instead of posted and wired as at present.

1175. You consider these facilitations would increase the traffic ?—Yes.

1176. How many cables are there ?—There are three —the deep-sea one, the one along the west coast from station to station, and one *viâ* the east coast. The last is duplicated in the Mozambique Channel, but really there is only one cable along the east coast.

1177. Do messages come by all three ?—Yes. I think the Natal traffic circulates principally by the east coast, and the Cape traffic by the west.

1178. But you are not in a position to say what the load factor is on any of these cables ?—No, I am not.

1179. Would it be possible to obtain it ?—I take it that the Company in London would be the only people who could give the information.

1180. All three are owned or controlled by the Eastern ?—Yes.

1181. Returning to the week-end cables again, I understand the facilities do not exist between Africa and Australia ?—No.

1182. Has there been any idea of extending them ? —That matter has not been discussed.

1183. Now, you give the receipts for 1913 as 273,000*l.* compared to a much larger sum in previous years ?—Yes.

1184. I suppose that figure is very largely controlled by the state of the mining market ?—I think it would be.

1185. If you read the figures in your table in connection with what one knows of the activity of the mining market, there looks to me as if there has been considerable progress in reality as regards ordinary traffic, because there must have been an enormous diminution of your finance telegram receipts ?—It would be of interest to compare that, but I am afraid we have no actual basis for comparison.

1186. Would your view be in consonance with the view I expressed, or are you disappointed with these receipts ?—In consonance with your remarks ; I think that the decrease in receipts is due very largely to the want of activity in the mining market.

1187. And considering the great diminution of activity, the level of other receipts has kept up well ? —Yes.

1188. (**Mr. Tatlow.**) In answer to a question, you said that if there were any reduction in the rate, a considerable increase in the number of telegrams would probably follow, and there would then be an

* Not printed.

* The witness subsequently supplied the figures printed in Appendix II., p. 81.

increase in the expenses of the cable company?—Yes, working expenses.

1189. Does it neeessarily follow? Could there not be a considerable increase in the number of messages without much additional expense? Could not the present staff probably deal with the increase?—That entirely depends upon whether the staff is fully employed. If the staff's time is not at present fully absorbed, then it could deal with increased traffic up to a certain limit, at practically no further expense.

1190. It does not necessarily follow that there would be a large additional expenditure which your previous answer indicated?—You are quite right.

1191. **(Mr. Lorimer.)** There is rather a curious clause in your contract which makes the Union-Castle Company agents for your coal. Was there anything peculiar governing that point when the contract was made?—No, except that it was a basis or starting point.

1192. The July figure was a starting point?—Yes.

1193. Is not the effect of that that the Company gets 1*s.* 6*d.* a ton for selling the coal?—As a matter of fact, the Company guarantees to take a certain quantity of coal per annum.

1194. But this is in addition to what they require for their own use. This is the point: "In order to "assist the development of South Africa, the con- "tractors undertake to purchase for export in addition "to any quantities they require for consumption, "not less than——"?—Yes.

1195. Of course, the object may be quite worth the effort, but is not 1*s.* 6*d.* a pretty stiff commission to pay to anybody for selling coal?—It was considered at the time to be reasonable.

1196. The coal is, of course, not of the highest quality, but it is good, and there are large shipments. I may be wrong as to figures, but I want to ascertain what was the ground or reason for paying what seems to me a very large commission on a transaction like that?—The Government considered that the clause was perfectly reasonable. Naturally, they were anxious to extend as far as possible the exportation of coal.

1197. What do they do with it?—They bunker steamers here.

1198. This is in addition to what they require for their own use?—Yes, they sell it in Cape Town to steamers calling here.

Cape Town, Monday, 2nd March 1914.

Mr. Henry T. L. Leefe, Assistant Manager at Cape Town of the Union-Castle Mail Steamship Co., called and examined.

(*For the evidence of this witness on "Bunker Coal," see p.* 94.)

The witness made the following statement:—

"I understand from the Press that some questions were asked the other day in reference to an item in the Cape Mail Contract dealing with coal matters. It did not seem to me from the newspaper reports that it was quite clear to the Commission what that referred to. In the Mail Contract there is a clause which stipulates that under certain circumstances, the Company has to purchase for export fifty thousand tons of coal. But I want to point out that we are only under an obligation to redeem that undertaking when the price for South African coal is 1*s.* 6*d.* a ton less than it was in 1912—July. Now as coal has been steadily rising in price since then, we are a long way from being called upon to redeem that undertaking. That is really the meaning of the clause."

1199. **(Chairman.)** What was the price in 1912?—Roughly 13*s.* 6*d.* to 13*s.* 9*d.*

1200. And what is it now?—15*s.* 6*d.* to 15*s.* 9*d.*

Cape Town, Tuesday, 3rd March 1914.

Mr. Alwyn Ignatius Vintcent, J.P., M.L.A., representing the Mossel Bay Chamber of Commerce, called and examined.

(*For the evidence of this witness on "Animal and Agricultural Produce," see page* 174)

The witness made the following statement:—

"There is just one matter which my Chamber asked me to ascertain if you would care to take evidence on, and that is the question of freight to Mossel Bay from Europe and the discrimination made by the Conference steamers between Mossel Bay and other South African ports."

1201. **(Chairman.)** Yes. I think we could take evidence on that?—I can give you a verbal statement. This in their view. Mossel Bay is served by the Conference lines, and there is a grievance that Mossel Bay is unduly handicapped in relation with Port Elizabeth, which is situated 200 miles further along the coast. For instance, steamers which call at Mossel Bay and proceed to Port Elizabeth, deliver general goods at Mossel Bay on which that port pays, on second class goods, say, 5*s.* a ton more than Port Elizabeth. On a line like cement, for instance, Mossel Bay pays 3*s.* 9*d.* a ton more than Port Elizabeth, although the goods are shipped in the same bottom. Representations have been made to the Conference lines from time to time, but no relief is obtained. We actually pay 1*s.* 6*d.* more than East London on cement, which is a port beyond Port Elizabeth. We have large irrigation works going on in the Oudtshoorn District served by Mossel Bay, and this surcharge of cement means about 8*d.* a cask, which is a very severe handicap, and which extra amount the farmer living in the neighbourhood of Mossel Bay has to pay compared with the farmer living near Port Elizabeth.

1202. What is the reply of the Company?—That, owing to the smaller volume of cargo at Mossel Bay, and the cost of deviation, it does not pay to deliver cargo to Mossel Bay on the same terms. I would point out that the deviation is not more than 25 miles, and the argument of the Chamber of Commerce as a set-off to this alleged extra cost is that they have the earnings on coastwise cargoes and passengers, which amount in the case of every call by the steamer to a sum very considerably in excess of the cost of the deviation.

1203. They say they have to make a special stop?—Well, it is worth their while to do so, because they come in with two or three hundred tons of cargo, and get most excellent despatch. It is a free port and there are no dock dues.

Cape Town, 3 March 1914.] Mr. ALWYN IGNATIUS VINTCENT, J.P., M.L.A. [*Communications : Post, Telegraph and Steamship (including Freights.*

1204. Have you figures of the annual trade in the port?—The total volume of trade there is about 66,000 tons a year, not very big. But that is not carried exclusively by the Conference lines. It includes cargo from America and Australia, and coastwise cargo as well.

1205. That compares with the trade to Port Elizabeth as to what?—I should say the tonnage at Port Elizabeth must be twelve times as large. I am simply speaking from memory. But, still, the opinion of the Chamber is that the circumstances do not justify such a heavy surcharge as exists in regard to a port in that position.

1206. **(Mr. Campbell.)** You say there are no dock dues at Mossel Bay. Are there no improvements in the port—no docks?—No, there are two jetties and the quay wall and a little breakwater, but not for the purpose of protecting ships at the anchorage. It is intended more to protect the lighters when being discharged at the jetty, and to protect the floating craft.

1207. Is there any objection on the part of the insurance companies to the boats using Mossel Bay?—No, it is exactly the same as Port Elizabeth.

1208. **(Sir Alfred Bateman.)** Is it a safe roadstead?—Yes.

1209. It is open?—Yes, the same as Port Elizabeth.

1210. You have the Mossel Bay Boating Company?—Yes, but that will be changed before long and the Government will take it over.

1211. You charge 5*s.* 6*d.* a ton?—Yes, that includes delivery into stores.

1212. Is it an increasing trade?—Yes. It is only during the last year that the port has been connected with Oudtshoorn by rail, which is the richest district in the Colony, and no doubt there will be connections between Mossel Bay and the western system, which will place the port in a good position to compete with Cape Town before long.

1213. And you think now is the time to ask for reductions?—Yes.

1214. **(Mr. Tatlow.)** Is it your opinion that the rates should be the same as Port Elizabeth, or would you consider any difference could be justified?—We all know that the bigger the volume of trade that is done the better terms it commands, and we would be satisfied if this excess were for the present reduced by 50 per cent.

1215. You think 3*s.* 9*d.* is too much?—Yes.

1216. You would not be against some reasonable difference?—No.

1217. **(Mr. Sinclair.)** What is the freight on cement from Port Elizabeth to Mossel Bay?—I should say 12*s.* 6*d.*, I fancy.

1218. Would you give it per cask?—Yes, the rate is probably 2*s.* 6*d.* per cask, if not lower. The rate from Southampton to Mossel Bay on cement is 18*s.* 9*d.*, the rate to Port Elizabeth 15*s.*, although carried in the same bottom. Well, in view of the small profit you are able to make on cement, such a figure as 8*d.* a cask is a serious handicap. 18*s.* 9*d.* a ton means 3*s.* 4*d.* a cask. The first cost of the cement is about 5*s.* 8*d.*

1219. **(Sir Jan Langerman.)** Could not Transvaal cement compete favourably with English cement?—They recently sent a representative to that neighbourhood on the subject of Transvaal cement. That is carried at a very low rate on the railway. It is carried from Pretoria to Mossel Bay—nearly 1,000 miles—at 17*s.* 6*d.* a ton, whereas the freight from Southampton to Mossel Bay by sea is 18*s.* 9*d.* a ton.

1220. So the question of cement does not enter into your grievance because you get it from the Transvaal?—It may not be so good.

1221. **(Sir Alfred Bateman.)** It is the Government Board of Railways and Harbours, which is doing these works on the jetty 600 feet long, I suppose?—Yes.

1222. Do you know what they are spending?—I think the jetty will cost 26,000*l.*

1223. That will improve your facilities?—Yes, I think the port ought to be able to handle 1,000 tons a day.

Mr. JOHN WILLIAM JAGGER, M.L.A., Wholesale Merchant and President of the Cape Town Chamber of Commerce, called and examined.

(*For evidence of this witness on "Land Settlement : on "Railways, &c.," on "Empire Development," and on "Fruit," see pp.* 6, 102, 160, 317 : *and on "Exhibitions," "Statistics," "General Trade Questions," and "Legislation," see pp.* 124, 127, 145, *and* 181 *of* [Cd. 7707].

1224. **(Chairman.)** You are President of the Cape Town Chamber of Commerce?—Yes.

1225. And you have made a special study of the subjects which this Commission has examined and reported on in Australia. Perhaps the most convenient way will be to deal first of all with the subject of cablegrams and telegrams?—Yes.

1226. What is your view of the present condition of the service to South Africa?—I think we have a very good service as regards the cable service generally, and as regards the ordinary rate of 2*s.* 6*d.* for a code cable, I do not think we have very much to complain of. It all depends, in my view, on what you want to attain to. If you want to attain to closer relations between the mother country and the Dominions, then to my mind there can be no question that it would be very advantageous to lower the rates for the deferred cables and week-end cables.

1227. And what would you suggest?—First, I should mention that the week-end and deferred cables only came into operation during the last twelve months, and I think they are being made use of quite considerably. They are not sufficiently known yet, but I strongly hold that a reduction in cost would mean a bigger traffic, and it will certainly go a long way to keep us more in touch with the other side. When you have to write letters and wait six weeks for a reply you very often do not write them at all. But if you had a really cheap cable service many people would use it for domestic and friendly communications. We merchants generally use the ordinary rate of 2*s.* 6*d.*, because we code our wires.

1228. You think the reductions should be rather in the direction of the deferred and week-end service?—Yes.

1229. This Commission recommended that the minimum length of a week-end message should be reduced, as regards Australia, from 24 words to 12. I believe your minimum is 30 words?—Yes, and the minimum charge is 15*s.* with 2*s.* 6*d.* for each additional five words or part thereof.

1230. Would you suggest reducing that minimum number from 30 to 10, and your minimum charge from 15*s.* to 5*s.*?—I think so.

1231. If that were done, would it be a considerable convenience to private persons and to the poorer classes of the community?—I think it would be used much more freely by the private individual. Of course, it would be an advantage if cables on the other side could be transmitted by telegraph. You see, the cable is handed in on Saturday in London at present and we

do not get it till Tuesday, although it is lying next door, so to speak.

1232. It has been suggested that these week-end cables should be delivered on Monday instead of Tuesday?—Yes, but I laid stress on the rate above all, and I would not let the fact of it being delivered later interfere with the charge.

1233. By the reduction of the rate you mean the reduction of the minimum number of words and also the reduction of the rate per word below 6*d*., or do you think 6*d*. adequate?—6*d*. is a moderate rate. I remember when the rate was 8*s*. 9*d*. in this country. But the more it is reduced the more use will be made of it.

1234. Now there is a controversial question as to the proportion between the ordinary code message and the deferred. In your judgment, as a man of business with a large experience of codes, what is the compression of a message by the use of code?—I could not say. I do not make up my own code messages. I write them out and hand them to a clerk. I could not decode a message myself from our code. It is a most elaborate business.

1235. In business do you use the deferred service much?—Not much. It is almost entirely the ordinary rate. If we used the deferred it would have to be a message in plain language.

1236. Perhaps I had better continue the examination on two or three similar subjects. About the mail service, now. What have you to say about that?—The speed?

1237. Yes.—I have been very well known for urging for a good many years that we should have a very much speedier passage than we get to-day. The present speed, as you know, under the mail contract recently signed by the Government is for a passage of 16 days 15 hours. Well, it has been that ever since October 1900, when we entered into a contract for ten years with the Union-Castle Company. I have a list here showing some of the speeds that were made prior to 1898. Here was the "Scot" which made the passage homewards in 13 days 23 hours. I remember in 1892 when the "Scot" arrived here on the Sunday afternoon; that would be about 14 days 20 hours. Then there is the "Dunottar Castle" homeward bound, which made a voyage of 14 days 23 hours; the old "Tantallon Castle" 15 days 2 hours; the "Norman" 15 days 6 hours; the "Dunvegan Castle" 15 days 6 hours. Well, all these vessels have made the passage quicker than the present boats. I should like to explain also that before the Union Steamship Company and the Castle Steamship Company amalgamated, there was much more competition as regards speed than there is to-day, especially on the homeward voyage. Since the amalgamation they have pretty well kept to the regular times. Now, that is, of course, a great argument with the postal authorities. It is an argument that carries great weight also with the commercial community—the extreme regularity and punctuality of the mail service. That, as I say, goes a long way with the business people, and is, perhaps, one reason why the business people have not pressed for greater speed. But I think the time has now come when we ought to have a quicker service. Of course, the mail contract entered into the other day is also for the same time, 16 days 15 hours, but the Government has reserved the right to reduce the passage to 16 days on a further payment of 19,000*l*. And I also notice in one of the clauses of the agreement they also take the right there to call for an accelerated service. When we have been pressing for this increase of speed, the mail company have said, "If you are prepared to pay we will put on the boats," but our people have never been prepared to pay more for the service.

1238. I think when you were negotiating with the Mail Steamship Company the Government here had the idea of sending mails by available ships under what is termed the "statutory rate" in England. Have you considered that?—Yes. Of course, that was the time when we were engaged in negotiating the new mail contract, and the Government had made up their minds to lay down as a condition of the contract that no mail contractor should be allowed to give rebates. When Donald Currie & Co. were the Managers for the Castle Company they simply refused to give up the rebates; in fact, they entered into agreements with other steamship companies like the Bucknall, Clan, and Ellerman Harrison lines not to give up rebates for another seven years. Of course, the Government had to look round and make inquiries as to the possibility of the mails being carried by other steamers, and I calculated at the time that there would be a ship calling here outward-bound 30 times a month.

1239. And homeward-bound?—Not so frequently—perhaps not more than half as many. But I do not think the commercial people were keen on the proposal, though, in my opinion, under that system we should have more opportunities of mailing to Europe than we have to-day.

1240. Less regular, less rapid, but more frequent?—Yes. Of course, there is no doubt that one thing that has largely reconciled the people in this country to the present service is the extremely reliable and regular nature of the service.

1241. Have you at all considered the possibility of a mail service to the Cape being combined with the mail service to Australia?—It was mentioned during these discussions some eighteen months ago. Of course, that would very much depend upon circumstances.

1242. What precisely do you mean?—Suppose you had these boats that carry passengers to Australia carrying the mails also, I do not think that on the whole we should get so good a passenger service. At present there is no doubt that, in that respect, we have little to complain of. We have the whole ship to ourselves and the mail company are very good from a passenger point of view. Supposing, for example, I am going home in three months from now, I can book a berth provisionally and make my own selection. I may then go into the office a fortnight before the date of my departure and tell them that for certain reasons I cannot go. Well, they will make no charge. They are extremely good in that way. With a through service to Australia I doubt if you could get all those advantages.

1243. Can you say anything as to how the present contract with the Union-Castle Company is working?—Of course, I think myself they are not working as economically as they should do. It is only fair to say that some time after the contract was signed—I think it was largely due to the influence of the Imperial Post Office—they wanted the day of arrival in England to be altered. The boat used to arrive on Saturday morning at Southampton, and the people in the north of England complained that as the outgoing boat left on the same day they had not time to reply to their correspondence. They approached the Imperial Post Office, therefore, to alter the day of arrival in England. Well that has been done, and the day of arrival is now Tuesday. But what is the result? It makes the day of departure of the mail steamer from here Saturday instead of Wednesday, and the consequence is that you have these expensive steamers, which probably cost 200*l*. a day to maintain, on this coast for about 18 days. The incoming boat usually discharges cargo here in about 16 hours, and leaves on Tuesday night for the coast. She spends a couple of days at Port Elizabeth, and East London, arrives at Durban at two on Sunday afternoon. She does not leave Durban until the following Sunday, spending six days taking in coal and cargo. To my mind that is an extravagant system. I suggested to Sir Owen Philipps in London in September last that it would be far better if they brought in the mail steamer on Monday, got her out of Cape Town sharp and hurried her up the coast. Let her leave Durban three days earlier, and thus keep her on the coast only 12 days instead of 19. In my opinion they would save in demurrage the extra cost of coal required to bring her in on Monday.

1244. What did they reply?—I could not say that any definite reply has been made. I think the alteration has been brought about very largely by the Imperial Post Office. I know it does not suit the merchants in London. Whereas formerly they got their mail on Saturday, they then had a whole week to reply;

now they get the letters on Tuesday morning and they lose a day pretty well in some of the London offices—because through this, Monday is an "off day." They have sent away the outward mail and the inward mail has not yet arrived.

1245. Under your plan how long does the ship have at Durban ?—I have not gone into details very much, but less than now. I suppose three days. Under the old system they usually left here on Wednesday daybreak and got to Durban on Sunday afternoon, and then left on the following Thursday afternoon.

There is one kind of traffic that we would like very much to develop—the tourist traffic from Europe. Of course, we think South Africa is well worth visiting, with our climate, scenery, the Victoria Falls, and the battlefields in Natal. There are a few tourists who come at present. I think the Railway Department intend to go into the matter pretty thoroughly, and they have put a certain amount of money—about 25,000*l.*—on their estimates for the coming year. I think the idea is to open an office in Pall Mall or Cockspur Street, London, or that neighbourhood, in order to endeavour to develop a tourist traffic to this country. That would be of benefit to the country and also, of course, to the mail steamship company.

1246. And you think the improved speed would be a powerful influence ?—Undoubtedly, if we could get down to 14 days, I believe it would immensely increase the number of people who would visit this part of the world, and I think it would increase the numbers passing backwards and forwards between here and Europe.

1247. You mean South African people would go home more often ?—I am thinking more of business people in that connection, and certainly you would have far more people coming out here.

1248. Will you go on to the matter of freights ?—I see you have taken a lot of evidence in reference to differential rates of freight charged between European ports and New Zealand, and it is only fair to say that we have nothing of that sort here. The rates of freight from all European ports—Hamburg, Rotterdam, Antwerp—are the same to South Africa as from any British port. There is a slight differentiation at present on some goods that come from New York and St. John. The Elder Dempster lines.—On automobiles, for instance—from London, 47*s.* 6*d.*; New York, 46*s.* 6*d.*; St. John, 41*s.* 3*d.* Canned goods—New York, 34*s.* 9*d.*; London, 32*s.* 6*d.*; St. John, 28*s.* 9*d.* Carriages—New York, 34*s.* 9*d.*; London, 35*s.*; St. John, 28*s.* 9*d.* Of course, the Elder Dempster Line is subsidised by the Canadian Government, and comes direct here.

1249. You might give us this list ?—Certainly.*

* List put in as follows :—

Following is a comparison between the freights charged from New York, St. Johns' and London :

Distances :

London to Cape Town - - -	5,918 miles.
New York to Cape Town - - -	6,995 „
St. John's to Cape Town - - -	6,025 „

Rates of Freight per ton :—

	From London.		From New York.		From St. John's.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*
Automobiles - - - -	47	6	46	6	41	3
Brooms - - - - -	32	6	32	3	28	9
Canned goods - - -	32	6	34	9	28	9
Carriages - - - -	35	0	34	9	28	9
Chairs - - - - -	25	0	24	0	20	0
Churns - - - - -	30	0	31	3	28	9
Cement - - - - -	15	0	15	0	12	6
Clothing in cases - - -	45	0	44	3	—	
„ „ bales - - -	35	0	34	9		
Duck - - - - -	47	6	46	6	28	9
Furniture - - - -	35	0	34	9	28	9
Corrugated iron sheets - -	25	0	25	0	—	
Lamps - - - - -	25	0	24	0	20	0
Ploughs - - - - -	30	0	29	9	24	9
Agricultural and Mining Machinery.	27	6	27	6		
Windmills - - - -	25	0	25	0	20	6
Wire, barb and plain - -	20	0	20	0	20	0

We have always held the opinion here that the rates charged to South Africa are more than they ought to be. I have a list here. It shows that on agricultural implements the figure to Cape Town is 30*s.*, and Melbourne 37*s.*; on asphalt—Cape Town 22*s.* 6*d.*, and Melbourne 25*s.* 9*d.*

1250. Are those rates now current ?—Yes; and since the contract was entered into on the 1st of September of last year the rates were considerably raised to South Africa, which I reckon, and I have pretty good authority for it, have cost South Africa over 200,000*l.* a year more.

1251. The rates were raised as a consequence of the contract ?—I would not say that. At that time rates all over the world were very high, and our rates had kept pretty steady. They had not risen in the same proportion as other parts of the world, but in September they were revised and raised.

1252. You could not say that was the direct consequence of the contract ?—No.

1253. Have freights come down much here ?—No, we have no outside steamers here at all. That is another grievance that we have. Of course, we have been agitating against this combination of steamship lines for years. In the year 1911, we got the Government to put some clauses into their Post Office Act which dealt with this matter. One clause is put in with the purpose of doing away with rebates. I will read it. (*Reading from Act.*)† Of course, that section prevents the Government from entering into any contract with any steamship company which gives rebates, and it also places the power in the hands of the Governor-General to differentiate in regard to any goods that may be brought by steamers of a combination. For instance, suppose an outside line came into the South African trade, and one of the existing Conference lines commenced to cut against the outside line, and used a fighting steamer to take away the trade from the outside line, under the provisions of this Act the Government could charge extra dock dues on all the goods carried by the fighting steamer. We pay dock dues at this port, for instance, of 1*s.* a ton, and 12*s.* 6*d.* per cent. But if there were a fighting steamer put on for the purpose of cutting out com-

† The section referred to, namely, Section 68, Act No. 10 of 1911, is as follows :—

6. (1) The Governor-General may enter into contracts in writing with any persons for the conveyance by sea of postal articles to and from the Union beyond the limits of South Africa.

(2) The Governor-General shall not enter into any such ocean mail contract with any person who—

(*a*) is connected directly or indirectly with any such shipping or other combination as the Governor-General may deem detrimental to, or likely to affect adversely, South African trade or industries ; or

(*b*) gives, offers, or promises to any person any rebate, refund, discount or reward upon condition that such person shall ship, or in consideration of such person having shipped, goods by vessels of particular lines to the exclusion of any others.

(3) The Governor-General may make regulations—

(*a*) differentiating as regards dock, wharfage, transhipping, or any other like dues at any port or harbour of the Union on goods landed from, shipped in, or transhipped from vessels owned or chartered by persons with whom the Governor General under sub-section (2) may not contract ; and

(*b*) differentiating as regards freight for the transport, over any railway belonging to the Government of the Union, of goods which have been landed or transhipped from, or are to be shipped in, vessels owned or chartered by persons with whom the Governor-General under sub-section (2) may not contract ; and

(*c*) prescribing the returns and other particulars which shall be made or furnished, and the manner in which such returns or particulars shall be made or furnished, by persons landing, transhipping, or shipping goods from or in any vessel or transhipping goods upon any railway of the Union ;

and generally for the better carrying out of the objects and purposes of this section.

petition, the port authorities could charge 10s. a ton, or anything they liked.

1254. Since these clauses were enacted, what has been the position?—They dropped the rebates, but they entered into a combination to keep out competition; and they have drawn up an agreement under which, before they will carry any imported goods, an undertaking must be signed to ship exclusively by those lines. I am one of those who have not signed the agreement, and in consequence I have had my goods differentiated against. For instance, I have sent goods down to one of the Bucknall boats, and that stuff has been sorted from the rest of the goods, and put on one side, and left out of the steamer, although the boat came with vacant cargo space. They do not shut cargo out altogether, but they put us to inconvenience as much as possible. That is what took place, also, with the Clan boats at Liverpool. There I have had 500 tons of goods lying, but the Clan boat would not take it by the first boat offering. It would be left lying there till the next boat. Of course, they make an excuse that, "We have entered into a contract with "the bulk of the shippers, and we must carry their "stuff first. If we have room we will carry yours also, "but not otherwise." We called the attention of the Government to this treatment, and the Government took action in accordance with certain clauses of the Ocean Mail Contract. They told the Union-Castle Steamship Company that, in their opinion, they were breaking that contract. Of course, the Company denied this charge, and the matter is now before a court of arbitration sitting in London. Sir Felix Schuster represents the Company, Sir R. Younger represents the South African Government, and Lord Mersey is the Umpire.

1255. **(Mr. Sinclair.)** You began by giving us some information about cables. Is it not the case that those who have not access to codes have really to pay more for deferred cables in plain English than if they used code and paid the higher rate?—Yes, probably that is so.

1256. Now, a question or two about the grievance that there is about the suggested combination or the suggested exclusive attitude of the steamship company in the matter of carriage of goods. In principle, the undertaking to give preference to their own customers is acted on, is it not, by merchants and dealers in different directions. That is to say, if a merchant has his own regular customer, and he is applied to to supply a casual customer at the same time—if he has not enough to supply both he prefers his own customer?—It naturally all depends on what he wants.

1257. In principle, and in practice, is not that the case, that suppliers always give preference to those who regularly deal with them?—Yes, but we have known steamers leave the port of London and shut out goods of non-signatories, with vacant space. There was one boat which came here with 600 tons of vacant space, having shut out a large amount of cargo of non-signatories.

1258. I am not suggesting a defence of that attitude, but am trying to point out this, that the undertaking to ship on the part of a shipper by a particular line meets with the undertaking on the other side that the ship will carry for him in preference to non-regular customers. It is a mutual contract, to that extent, is it not? On the one hand, there is an obligation to give the goods for carriage to one shipper, and, on the other, there is this undertaking of the carrier to carry those goods?—Yes, but he does not do that sometimes.

1259. So far as that principle is concerned, if it went no further than that, would you find fault with it?—Yes, certainly, under the present circumstances. Because I contend that the Union-Castle Company, at any rate, have no right to differentiate under the terms of their contract.

1260. But on principle, do you object to a trader giving preference to his regular customers as against casual customers?—I maintain myself that the same circumstances do not apply.

1261. But even in the circumstances I put to you, I gather from you that you would condemn it as a matter of practice if it went no further than I put it?—Yes, certainly, as far as the shipping is concerned—most assuredly.

1262. **(Mr. Tatlow.)** In regard to the question of the steamship companies, you say you would not be satisfied if they limited the matter of preference to the shipments of goods. You think that is an undue preference if they do not receive the goods of all the shippers alike?—Most certainly.

1263. Do you look upon it in this way—that steamship companies as public companies ought to treat the public fairly and without favour?—We have to look at it in this way. We look to what is the intention of this agreement. We know perfectly well that they made this agreement in order to keep out competition. If they have an agreement signed by 75 per cent. of the shippers, a new line stands no chance.

1264. Does much delay occur in the shipping of goods of people they do not favour?—I have suffered considerable loss. In fact I have sent a lot of stuff across to Antwerp and shipped it by German boats. We have actually shipped at Southampton to Antwerp, and then from there to South Africa by the German East African line. I had to pay the extra expense of shipping across to Antwerp.

1265. **(Sir Alfred Bateman.)** Is the Merchants' Committee in London a body that has altered much in these seven years?—No. What we do complain of is that they do not really represent the opinions of South Africa.

1266. You said so seven years ago, and is it the same now?—Most assuredly it is. This agreement with the shipping companies has been very largely favoured by the Merchants' Committee—in fact some of us think they instigated it. Because if there is one thing that a London shipper likes above everything else it is to be able to send down his stuff to the docks and get it shipped without any trouble. Now we in South Africa lay more stress on cheaper rates on freight, and so forth. I think I can speak for the majority of Cape Town merchants that the London Committee is not sufficiently in touch with our needs.

1267. It was one of the objects of the Commission on Shipping Rings that we should rather encourage a big conference of merchants of this sort to deal with the subject of shipping companies and their relations on equal terms?—We are certainly under the impression here that they look at it more from a shipowner's point of view than we do.

1268. Things in some ways have improved, I think. I think you said that there are no lower rates from America than from England?—There are a few, but not very much.

1269. There was a great difference at one time?—Yes, but from America now there is no conference line. There is an open market.

1270. Do you know much about it? Who has done it?—The Sherman Act has done it.

1271. You think that Act has done it?—Yes, I think the United States Government at one time threatened to bring the steamship companies trading to South Africa into court.

1272. American machinery from the Harvester Company still comes in here?—Yes.

1273. But not assisted by some preference rate?—I could not say. I think there is no doubt that some of these big American concerns do make contracts. I could not say about the Harvester Company. We get stuff from them ourselves, and it is nearly all bought in New York.

1274. Is it the case now that you pay more for sending your wool to England than Australia pays?—Yes, I think it is $\frac{3}{8}d.$ now. I do not know whether you have seen this freight agreement with the Government. But these rates are very low for homeward traffic.

1275. I think it was while the Shipping Rings Commission were out here that the mealie rate was reduced, and we always claimed that some of that benefit was due to us?—Yes.

1276. And you have a lower fruit rate?—Yes.

1277. And 10s. less for inspected fruit?—Yes.

1278. Now in regard to Government stores being carried cheaper?—Yes.

Cape Town, 3 March 1914.] Mr. JOHN WILLIAM JAGGER, M.L.A. [*Communications : Post, Telegraph, and Steamship (including Freights).*

1279. It has been accepted here, I understand ?—Yes, they made a special contract with the steamship company.

1280. And also about these differential dock dues as a remedy against the rebate system ?—Not in the nature of a rebate. All rebates have been done away with.

1281. Differential freights ?—Yes, there are no rebates now. But the Government have the power to put on differential dock dues at the ports.

1282. I think that in 1905 you brought over to London two Bills which the Board of Trade looked on with some suspicion, two Bills for remedying these evils ?—I think we tried to deal with the shippers.

1283. The Bills would, I think, have brought us into conflict with several treaties ?—Yes, but the Government now propose dealing with the goods.

1284. It does not conflict with any of the treaties ?—No.

1285. **(Mr. Campbell.)** In regard to these cables: the South African Government, I understand, offers a contingent subsidy, so that when the traffic does not total a certain sum, they pay a subsidy ?—Yes.

1286. Do they pay ?—I think there is a deficit at present and the Government is called on to pay.

1287. In the event of further reductions being effected, do you think the increased business would be insufficient to cover the increased expenditure or would it be a matter of further subsidy on the part of South Africa ?—It might for a year or two, but I certainly think in time the week-end cablegrams would pay. It would not very much affect the ordinary cablegrams.

1288. You do not think it would in any way interfere with the commercial business ?—No.

1289. In regard to the mail contract, I take it that you are of opinion that the Government does not get enough for its money. Is that the position ?—I would not go quite so far as that.

1290. Do you think there should be an increased subsidy for this quicker service ?—No. Our contention has been this in recent years : We say in South Africa the steamers have got a good many advantages and can work more cheaply than in former years. Taking this point, the dues they pay in Table Bay Harbour are less than ten years ago. In those days they paid sixpence a ton on the nett tonnage. Now it is one penny a ton on the gross tonnage, and they get much quicker despatch with cranes and much cheaper coal. I remember when every ton of coal here was Welsh and cost, I suppose, thirty-five shillings. There are also much better return cargoes.

1291. Your position is that the company should give a quicker service by three days for the same subsidy ?—No. I would not say that. But I think they should give a quicker service for the present subsidy. I would not say three days.

1292. That would be 14 days from Southampton to Cape Town. What is the subsidy, 171,000*l.* ?—The subsidy is 150,000*l.* and then there is 21,000*l.* for going round to Durban.

1293. Taking the mail contract on that basis, and with this new speed that you have figured out, what time could the mail contract service be performed in between Cape Town and Fremantle ?—I could not say.

1294. Is it a great deal further from here to Fremantle than from here to London ?—No.

(Chairman.) It is the same distance from here to Fremantle as from here to Madeira.

1295. **(Mr. Campbell.)** Suppose a mail contract were entered into from Cape Town to Fremantle, it could be done in less than fourteen days, could it not, and in less than 28 days from London to Fremantle ?—Yes, I should say so.

1296. Do you think a higher subsidy would be required from here to Australia than from here to London ?—I think there is no doubt that you would require a bigger subsidy.

1297. On the basis of the service that you maintain should be run between here and England, it is reasonable to say that they could, by having a further mail service from here to Fremantle, get something like a twenty-seven or twenty-eight day service ; do you think so ?—I should think so.

(Chairman.) It comes out 24 days to Fremantle on the basis of the speed you advocate from England to Cape Town.

1298. **(Mr. Campbell.)** As far as comparisons are possible between here and London, do you get cheaper freights than, say, to Australia ?—No, you in Australia get cheaper than we do, taking distance into consideration. It is 12,000 miles to Melbourne. Reckoning it per mile, you get cheaper freights than we do.

1299. Do not you think there is something in this, that the trade between here and Australia really acts as some sort of a check on your shipping companies ?—No, only as to passengers. All the British ships that come round this coast on the way to Australia do not bring a single package of stuff to South Africa.

1300. On the voyage from London to Australia, there is no cargo ; is that it ?—No, nor the other way. But passenger traffic, yes. There are the White Star, Blue Funnel, and Aberdeen lines. They have cut into the passenger traffic and run a very good service too. They do bring goods from Australia to this port, but they do not take a single pound of stuff from here.

1301. **(Chairman.)** You say that the Australian boats neither bring goods here nor take them away ?—Yes, Australian produce comes here, of course.

1302. From England ?—No, not a package except what the German boats do. There are three German lines, but they do not touch at any British port. But no British boat brings goods to South Africa on the way to Australia.

1303. Why ?—On account of the Conference ring at present.

1304. Do not the Conference restrictions extend to passengers then ?—Apparently not. You will find the service given, especially by the Aberdeen line, very good, and they must take quite a number of passengers, and taken altogether, it is rather cheaper than the Union-Castle boats.

1305. So the Australian boats cut into the passenger trade, but not into the freight ?—No, we wish they would cut into the freight market.

Cape Town, Wednesday, March 4th 1914.

The Hon. Sir THOMAS WILLIAM SMARTT, K.C.M.G., M.L.A., called and examined.

(*For the evidence of this witness on "Land Settlement," "Bunker Coal" and on "Fruit," see pp.* 8, 103, *and* 318.)

1306. **(Chairman.)** You have devoted considerable attention, I believe, to communications by mail and cable ?—Yes.

1307. Perhaps it would be convenient to take the question of the mails first. We would like to know your views in regard to present arrangements and prospects in connection with the mail service to the Cape ?—My idea is that I do not think that we have derived all the advantages that we should have derived in quicker transit owing to the great changes and developments that have taken place in steamer construction during the last twenty to twenty-five years. For instance, I think from 1888 to 1893 we had a mail contract of something in the neighbourhood of 20 days, and then from 1893 to 1900 we had another contract which reduced the period of time by a day, to 19 days

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and from 1900 to 1910 our mail contract ran for 16 days 20 hours, and after three years it was reduced to 16 days 15 hours. Then, at the end of 1910, we had to enter into a new contract, and while negotiations were going on, the contract was renewed for a couple of years. Our new contract has been entered into on a basis of 16 days 15 hours. There is a clause in the contract by which, on paying a certain amount of money extra, the time can be reduced in one direction, I think, by a day. But my point is that in view of the fact that under the earlier contract, that is, I think, from 1893, when the period of time was fixed at 16 day 15 hours, there has been a considerable advance in construction of ocean-going steamers which ought to have given us, for the same terms we are now paying, much greater speed. Now I remember, for instance, coming out in the "Scot" in 1890 and the "Dunottar Castle" in 1891. That was the time when the Union Company and the Castle Company were in opposition, and we had then two mail contracts with the separate Companies. Both those ships did their trial voyages when they were competing with one another quicker than now. That is over twenty years ago. My great point is that it is in the interests of the Empire to do everything possible to quicken the means of communication, and that it is vital to the interests of the outlying portions of the Empire, such as South Africa, Australia, and New Zealand. I believe that every day that you can reduce the period of transit between these countries is in the interests of every portion of the country. Take, for instance, people coming out to South Africa. Some people say it makes no difference; what does it matter whether it is 14, 15, or 16 days; but I would say there must be a number of people who leave England every year for a certain period of holiday; they go to Egypt and the South of Europe. Now if you could have a 14 days' service to South Africa or a shorter service, I believe you would encourage a large number of people to come out here and they would then begin to realise the resources of the country. By bringing people into close contact with one another, you maintain the Imperial connection far better than you do at present.

1308. You anticipate that with an improved speed an increasing number of people would visit South Africa: would you also anticipate that a large number of South Africans would visit England more frequently?—Yes, and I will tell you why. The majority of people here are not people of leisure, they are business people, they may be able to take a holiday of a couple of months, and many men, if ocean transport would allow them to do the double sea journey in 28 days, would take the trip oftener, even if they had only two or three weeks on the other side. I feel perfectly certain that if you had quicker transit you would have a far greater number of people going to and fro, which would be to the interests both of this country and Great Britain.

1309. It is clear that increased speed involves increased expense?—I recognise that increased speed means increased expense, and I also recognise that that is a question for experts such as naval architects to go into. It must not be forgotten that from 1903 we had a contract for 16 days 15 hours, and there is no doubt that since then enormous developments have taken place in modern construction. To-day you have triple expansion engines, turbines, improved modes of construction, and, over and above everything else, you have extremely cheap coal here. In the old days steamers coming out to South Africa had to get coal here which had been shipped from England, which was, of course, very expensive. There is now plenty of coal to be obtained in the country, and I have always said that we should have a table prepared by experts under a proper system showing what was the cost of running steamships in 1893 from Southampton to Cape Town in 16 days 15 hours and what is the cost to-day with all the new developments which have taken place in marine architecture and the entirely altered condition in regard to coal in South Africa, but naturally I only speak generally on the matter. What is wanted is to have the views of experts on the subject, because the ordinary man in the street would naturally consider that with all these great improvements and changes it should be possible to reduce the period of transit without increasing your cost of working very considerably; otherwise, if it would increase your cost of working, then the developments that have taken place are of very little advantage so far as cheapening the transport of ocean freight is concerned.

1310. The price now at which you can obtain coal here seems to vary from 21s. to 26s. per ton. At the period you speak of, when the "Scot" did the voyage, can you tell us what the cost of coal was then?—I can not tell you that, but the Commission should easily be able to ascertain. In those days the mail steamers, I think, left Southampton on Friday, and the "Scot" got in on Sunday night or Monday morning.

1311. At that time was there any South African coal to be had?—I think that all the coal used then was imported, but these are facts which you could more easily obtain, perhaps, from the Railway Department.

1312. Have you considered at all the possibility of a joint mail service with Australia?—Yes, I always thought that there would be a possibility of doing something. My object is to give every possible facility to shipping in Cape Town docks and to encourage by every means that you can as much ocean transport to come round the Cape as possible, and I do not see why competition should not apply to shipping companies the same as everything else, and the more one can do to prevent a combine in connection with the regulation of rates, so much the better for the country.

1313. Now take the position of the Committee of Merchants in London, who are signing an agreement with regard to rates of freight agreeing to give all their traffic to the existing Mail Company for a certain period of years?—Well, that may be all very well in the interests of the merchants themselves, who beyond everything else desire that they shall be able to forecast for a certain period of time rates at which they can lay down goods at any given point, but I would like the Commission to consider who has to pay for that—the South African public has to pay, and every shilling by which you can reduce the cost of tonnage, although it may interfere with the individual merchants making out their estimates, is to the advantage of the country in the long run, that is the extra purchasing power to the country, and I think that that is an important consideration, and far more important than any individual desiring to fix his rate of freight You know, however, there are great differences of opinion on this subject, and I should like to say that I am looking at it entirely from the point of view of developing a new country.

1314. Would it be desirable, in your judgment, when the contracts for the Australian mails have to be renewed, for something in the way of a combination to be made between South Africa and Australia with a view to the examination of the question and to consider whether a diversion of route is not possible?—I can answer that by saying that everything that reduces the time and cost of transport is in the interests of Australia as well as South Africa, and under those circumstances I do not think it would be anything but good business for them to discuss the situation, and, if they found it advantageous, to combine.

1315. You would favour the authorities here, then, examining the question as to whether some combination is possible?—Absolutely, because I maintain that the prime duty of the authorities here is to look entirely and solely to the interests of the country. I do not want to be misunderstood, because I hold very strong views about not giving our mail contracts to anything but British shipping, but I would like to have as much competition in that shipping as possible.

1316. Now, turning to another form of communication, namely, cables. What is your view on that subject?—I think that the reduction of cable rates is going to be of considerable advantage from many points of view, even the reductions we have had up to now have been of great benefit, for instance, the reduction on "deferred" cables and week-end cables

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I think that has done a great deal of good, because it enables people in one part of the Empire to get into more rapid communication with those in another part, and that is to the general advantage of the Empire. What the position would be from a financial point of view, of course, I am not qualified to speak on, but I believe that every reduction of rates will largely increase the amount of communication. There is no doubt that very few people can afford to pay high cable rates A good many people would make use of the cable service if they could do so at a cheap rate. I believe many people make use of the week-end rates.

1317. Have you considered at all the desirability of reducing the minimum of the week-end cables?—As you are no doubt aware, the smallest message is 30 words, costing 15*s.*; and it has been proposed to reduce that minimum to a smaller number of words costing 10*s.* or 5*s.* I am perfectly certain that if you did so it would increase the number of messages materially, and it would meet the requirements of people to whom 15*s.* is a considerable item.

1318. Would it be a boon, do you think, to the poorer class?—Yes.

1319. Can you tell us whether these new facilities for deferred and week-end cablegrams have been sufficiently brought to the notice of the public?—I do not think they have. That is a question I was discussing the other day with another gentleman, and I find that there are large numbers of people who do not know of the existence of these facilities for sending week-end cables at 15*s.* for 30 words. I think that in that respect the Postal Department could do a good deal by having the fact prominently notified in the post offices.

1320. So far as you are aware that has not yet been done sufficiently?—No. Of course, I cannot speak with authority on that subject, but I find that by talking to people, many do not know about it.

1321. People of what class?—Well, perhaps not people actively engaged in business. Of course, every business man knows about it.

1322. You mean people in touch with the commercial class?—Yes.

1323. And if those people are ignorant of this facility, then, *à fortiori*, classes which are less in touch with the commercial community would ignore it?—Yes, decidedly.

1324. Can you suggest any other means by which these facilities could be brought to the notice of the public?—I do not know anything that could be done except making these changes as public as possible, and by doing so in a manner which catches the eye of the ordinary individual.

1325. I understand that you would be in favour of the proposed reduction of the minimum from 30 to 15 words or even 10 words?—Yes, I can give you an example. I think very often people who send a week-end cable could express what they desire to say in fewer words than 30, and very often they find they have to spin their message out in order to make it the minimum number.

1326. That is, of course, of no advantage to anybody. It is to the disadvantage of people who wish to send a shorter cable, and also to the disadvantage of the general service, because it blocks the lines with words that nobody requires?—Yes, except that they would say, I suppose, that they got a little more money for it.

1327. Is it that the Post Office and cable service have been afraid of diverting traffic from the full rates to the cheaper rates?—Yes, I imagine so.

1328. And that fear has possibly led them to neglect the duty of bringing these facilities more prominently before the public?—Yes, that may be, but I cannot speak with authority.

1329. Are there any other points connected with communications which you would like to bring forward?—No, I do not think so. I think that deals with the whole question from a general point of view. I do not attempt to speak with any expert knowledge.

1330. But you speak with a very wide knowledge of public requirements?—Yes.

1331. **(Sir Rider Haggard.)** I understand you think that a line of big and fast steamers with deep draught would be a great advantage to the Cape as well as to Australia?—Yes, because it is a self-evident fact that if you have a large amount of transport passing this way, during the period the boats stop here to call the people see the country and meet the people and learn something of its possibilities; they also draw large quantities of foodstuffs for the voyage from this port. During the few hours passengers are on shore they also spend a certain amount of money, which is of some assistance.

1332. It has been stated that every steamer that calls at Madeira leaves 300*l.* behind it?—I suppose so.

1333. Have you ever looked at the matter from the Imperial point of view; for instance, that it would avoid the carrying of mails through foreign territories?—Yes.

1334. Also avoid difficulty in times of trouble or even of accident, such as the blocking of a narrow canal?—Yes. I am in favour of offering larger inducements to keep as much trade as possible in Imperial channels. It is the same with cables, and I am in favour of the Imperial Cable route.

1335. **(Sir Jan Langerman.)** In regard to the subsidy, you say that in view of the improvements in naval architecture we did not get any benefit out of the new contract, such as an increase in speed?—Yes. My suggestion at the time the contract was under consideration was that naval architects should be asked to work out as a business proposition what was the cost of running a ton of goods, say, from Southampton to South Africa in 1890, compared with the present day, in view of the developments which have taken place in naval architecture, and the cost of coal at this end as well as the character of the traffic. I would have liked to have seen a statement of that kind showing this information, but I have never seen such a statement.

1336. To-day the Union Government pays a subsidy of 171,000*l.* Do you know at all what the subsidy was previous to this last contract, whether it was less or more?—I think it was about the same. If you remember, there was competition before the Union between Durban and Cape Town, and the Natal Government, for the purpose of getting steamers to enter Durban Harbour, paid a certain amount of money to encourage them to go inside, and that payment was continued by the Union Government.

1337. In your opinion, assuming that the subsidy to-day is the same as the subsidy before this new contract was made, the old contract being based on the expensive Welsh coal, whereas to-day coal is much cheaper in the Union, taking those things into consideration, do you not think that we ought to have a much better service for the money we pay?—Yes. As I say, I should like to see figures to show me that I am not correct in stating, as I do, that with the recent developments and the cheaper fuel, we ought to get greater facilities in 1914 than we used to get in 1893.

1338. In regard to cables. It is the general idea that in postal and cable matters, if the price is reduced, there is an increased volume of trade, but would that increased volume of trade pay for the extra expense connected with the cheapening of the rates?—On that question one can only express an opinion, one must be an expert on cable matters to give views of any value.

1339. No doubt you are aware that the Government guarantees the Cable Company a certain amount of money, and there has been a deficiency of something like 7,000*l.* or 8,000*l.* a year for the last few years. We have cheapened the cables and yet, in spite of this reduction, there is still a deficiency in the cable receipts. Do you know if this reduction has had any effect upon the amount contributed by the Government?—I cannot say, I have not gone into the figures.

1340. **(Mr. Garnett.)** You are not in a position to give any comparison as to the prices prevailing between 1890 and 1912, I understand. Your complaint, I gather, is that, having regard to the great development in naval architecture, and the improvement in the means

of communication, and so forth, and also the decrease in the cost of your coal, you have not received commensurate advantages?—Yes.

1341. Have you taken into consideration the factor that is brought into the matter by the relative cost of construction as between now and 1900 or 1890?—No, I am only speaking generally.

1342. By the cost of construction I mean, not only the cost of materials but increased wages?—Yes.

1343. You are also aware of the enormous increase there has been in the cost of coal in the United Kingdom?—Yes.

1344. You do not know whether the increased expenditure under these headings would increase the cost of running?—No. But I would say this—I find that the late Castle Steamship Company, of which Donald Currie and Company were the Managers, had an appreciation of something like three millions of money, owing to the fact that they had built up reserves in various ways by insurance funds and writing down cost of ships. Speaking generally, you only want a certain amount of common sense to see that that enormous profit has been paid by the consuming population in South Africa, and it is a profit far and above what you would expect from a Company that was only paying for a considerable period of time a dividend of something in the nature of 5 per cent. All I can say is, I do not know how it is done. They establish their insurance funds and gradually build them up to a large amount, they write down the tonnage of their steamers and they do other things of that kind. Well, I ask as a simple farmer, how is it done? Is it done out of the profits that do not appear in the ordinary balance sheet, because it is a method of doing business that from my farming point of view I would like immensely to understand. If that is the case in the past I am afraid it may go on in the future. I do not want any unnecessary advantage; the only advantage I want is a fair advantage, in view of the great developments that have taken place, because, unfortunately, all over the world shipping companies are combining. I can give you an example. It struck me very forcibly at the time, but some years ago I was ordering a large quantity of iron standards for fencing operations in the Karroo. I desired to get these goods from an English manufacturer. I saw my Agents at Port Elizabeth, who were ordering these things on commission. I said to them, "I am in no "hurry for these things. Get them by any tramp "steamer you like." What was their reply? They said, "Oh, if that is the case we are very sorry; if "that is your condition, we cannot take the order "because we shall lose our rebates"; which came to a very considerable amount. Now that has been done away with in the new Post Office contract, but the Company has attempted to get every merchant to sign an agreement to send his goods by the conference lines, with the feeling that if this agreement were not signed his goods might be shut out. That agreement has a tendency to introduce on a larger scale the old principle under another name. Now, I say that is not in the interest of the public.

1345. With regard to the question of increased tonnage in ships; assuming that very much larger ships were built, in your opinion would there be a commensurate growth of trade that would insure an equal number of ships coming to the Cape, because, assuming that the tonnage in ships increased very much, would the advantage arising from the larger ships and cheaper carriage compensate for any reduction in the number of vessels calling here carrying merchandise?—I think you would want a man who was more versed in commercial matters to answer that question.

1346. Would you admit that it is of some advantage to the community at large?—Yes, but I am not competent to give an opinion.

1347. **(Mr. Bowring.)** With regard to what you have told us about the time when there was competition between the steamship services, how was it that when the Government came to renew their contract and found that the passage could be done in, say, 14 days, it was not provided for. Because when the Government came to renew the contract, as most people know, what took place in the shipping world was this, that there was really no open competition for the Cape mail service. There is such a thing, I believe, as one shipping company exercising its influence to keep another company out of its sphere of action. One company can say to another, —You had better keep out of this business or you may find me coming into yours. Now you understand what I mean?—I believe that took place. I have been told so, I have a shrewd idea that there may be a modicum of truth in it.

1348. You mean that they must have agreed amongst themselves that they would reduce the rate of speed rather than increase it?—I think when we called for our tender there was practically no competition.

(Sir Jan Langerman.) Donald Currie and Company had the controlling interest in the Union Company and there was no competition.

1349. **(Mr. Bowring.)** It seems a very curious thing that if it could be done in something like 14 days in 1890, twenty years later you should be running the distance in 16 days 15 hours?—It may have been more than 14 days, but it was much quicker than now. For instance, I think the last steamer of the Union Company was the "Saxon," which was much quicker than many of the ships that were built at a later date. She was built in the days of competition. She is still running and I believe is capable of doing the passage in much less than the present time, but, occasionally, I understand, she slows down before she gets into port because it would never do to get into Cape Town before Tuesday morning; that would be a most serious thing.

1350. Have you any idea what time the boats can do it in?—No, but I have a shrewd idea that in all these things the speed of the fleet is regulated by the slowest unit.

1351. And possibly the slowest unit is the oldest boat?—No, unfortunately, that is not so, because some of the boats which have been built at a later date are slower than the "Saxon" and those that were built in the days of competition. That is an extraordinary thing, no doubt; if the boat which was built years ago was the slowest I could understand the position better, but I find that it is some of the newer vessels which have been built since the amalgamation that are the slowest. I can give you two examples, namely, the "Kildonan Castle" and the "Kinfauns Castle"; they are both slower than the "Saxon."

1352. Then it is really a retrograde movement?—Yes, as far as speed is concerned. It may not have been a retrograde movement from the point of view of the Union-Castle Company, considering that they have been built to keep out all competition.

1353. But it is retrograde to build newer boats which run at a slower speed than the older ones?—Yes, but I hope that policy will be altered in the future.

1354. Now about accommodation, has that improved during the last five years?—I do not think there can be any complaint about passenger accommodation and regularity of the service and the extraordinarily good seamanship on this line.

1355. I think that is admitted on all sides?—Yes, it is a splendidly manned service, they have a magnificent body of officers and they have extremely few accidents, they show every care for lives and property and the interests of the passengers. I do not know whether their fares may not be a little more, generally speaking, than the fares from Australia by other lines, taking distance into account, but their ordinary tariff will show you that.

1356. Can you tell us how the un-subsidised lines compare with the subsidised lines?—No, I have no idea. I have been told that some of the Australian boats which pass here are very well done in regard to speed and accommodation, but I have never travelled in them.

1357. It is generally considered there is not much difference in speed or accommodation?—I do not think so.

1358. The German lines run regularly to the Cape do they not?—Yes, but I do not know very much

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about them. I hold very strongly that we should travel by our own steamers.

1359. Can you tell us if the German lines are cutting into the Cape trade to any extent?—I believe there was an idea that they were cutting into the East African trade very considerably at one time.

1360. But with regard to the Union?—That is a thing I do not know. I think you require to get the records from some of the Governments or from the Chamber of Commerce. There must be a great deal of traffic done with this country. There was, I understand, one period of time when it was cheaper almost to ship goods from Hamburg than from Southampton by one of our own steamers. I think Sir Alfred Bateman will know about that.

1361. In regard to reductions in the price of week-end cables. Have any representations been made by the Government or by the cable companies with that end in view?—I do not know, I am only speaking generally on the advantages such reductions would have.

1362. But you think if those representations were made they might be successful in reducing the week-end cable rates?—Oh. I do not know about that, because I cannot say what answer the Cable Company would make to the request. I think it would be very advantageous to this country, and that it would increase the number of messages if it came into operation.

1363. **(Sir Alfred Bateman.)** I do not know whether you remember the Commission on Shipping Rings some seven years ago?—Yes.

1364. I daresay you remember that as regards the freights of exports at that time there was practically no complaint?—No.

1365. And that the Union-Castle Company served the people well?—No.

1366. Even with regard to South African wool paying a higher rate than the Australian wool we had no complaints?—Except that one got rather a shock on learning at last that it was stated on fairly good authority in the House of Assembly during the debate on the Post Office Bill that a ship put into Durban, and there was a large quantity of wool ready for shipment, and that ship went East to look for cargo, because, owing to her agreement, it was impossible to load homeward freight from here. That made people think that there were combinations that were not of benefit to the country. It was said that that ship went 6,000 miles to take a cargo of wool at a lower rate than from Durban.

1367. But, speaking generally, there were practically no complaints about rates of produce except in regard to maize, and that was altered about the same time?—Yes.

1368. As regards imports there were some complaints, but I daresay you remember that the Commission was very much struck with the advantages of those regular services?—Yes.

1369. Then I think you remember there were difficulties about port competition and jealousy between the different States, especially Natal, and the adroit way in which Donald Currie & Co. played one State off against another, occasionally altering the rates to the advantage of Durban?—Yes.

1370. The Commission expected that when you had a united South Africa you would be in a better position to bargain?—Yes.

1371. I do not know whether you are of opinion that the bargain has been well made?—I would not say that; my view has been that there is only one way of bargaining with a combine, that is to say: "I am very "sorry, gentlemen, that if you are not prepared to do "this, then we are prepared to build seven of our own "ships to carry our mails, we are prepared to depend "upon the ocean transport of the world to carry the "rest of the goods." We would then be dealing upon equal terms. We do not deal on equal terms at the present time.

1372. Do you think you could have built vessels enough to carry your mails?—Yes. I believe we could have built seven ships, but the trouble was to get the country to accept the proposal. There were many ideas about the matter, and the fear as to what would be the qualification of the people who took charge of a service of that sort.

1373. I do not gather that you prefer the State doing it?—Decidedly not, except as a last resort.

1374. Would you sooner see things done outside than by the State itself?—Yes.

1375. Now, as regards the South African Merchants' Committee—you rather condemn them, I gather?—My view in regard to the South African Merchants' Committee is this: That they have a perfect right as business men to look after their own interests, but their interests are to avoid any alteration in prices which could affect the figure at which they could quote for certain goods in South Africa. Well, that is all very well, but it is not in the interests of this country. The interests of this country are to get the stuff delivered here as cheaply as possible, and I decidedly object to a certain body of gentlemen gathered together in London making arrangements about freights to this country.

1376. Surely they represent an enormous proportion of the trade?—Yes, but there is more than the trade concerned; there are the general consumers as well as the commercial population.

1377. But anything that produces a regular and cheap service would surely be to the advantage of the consumer as well as the Merchants' Committee?—Yes, if they maintained a cheap service, but they were willing to fix the rates, and may very often give a dearer service instead of a cheaper one, because it keeps other people out of the trade, because if all the merchants in South Africa combine for twelve months to give all their goods to certain lines of steamers, what advantage would there be to an outsider to enter into the trade?

1378. You would rather like to see competition so that you could get the cheapest rates possible?—Yes, I maintain that a company which gets a subsidy, or as they call it a "consideration" for carrying the mails, ought not to take up the line which they have taken up in the past. Having got that consideration for services rendered they ought to be able, as a fair matter of business, to keep the rest of the trade by giving ordinary competitive rates, but I do not think they always do it.

1379. The Shipping Rings Commission had the idea that a strong South African Merchants' Committee could represent thoroughly well the trade here, and they would be in a good position to bargain with the shipping companies and get the best possible rates and freights?—Yes, but above everything else although a strong committee might be desirable, if that committee give something away in the shape of increased rates and freights for the purpose of having a twelve months' contract, and if that cost 2*s*. 6*d*. or 5*s*. a ton extra on goods shipped to this country, these gentleman would not pay, it would be the consuming public of this country who would have to pay it, they would have that 2*s*. 6*d*. or 5*s*. added on to their prices, and I maintain that that is not to the advantage of the State.

1380. Sooner than that you would be in favour of State action?—Absolutely. I consider it is another means of introducing the rebate system; the object of the rebate system was to prevent people going to anybody else and keeping out competition.

1381. Surely now with this large mail contract the Government is in a very strong position?—I think so.

1382. And it ought to be able to make a good bargain?—I do not think that there is any doubt about it.

1383. Now do you think it is possible that at the next opportunity they may make a better bargain?—You mean when we have a new mail contract? I certainly think so.

1384. Do you think you would get increased speed for your mails, and also an open market for freight?—We thought we were going to get an open market for freight now.

1385. **(Mr. Campbell.)** You spoke of favouring a discussion between Australia and South Africa on the subject of a basis for a combined mail service: there was such a proposal on foot some two or three years

ago I believe ?—Yes, I believe there were the *pourparlers.*

1386. Were there any details given ?—I do not know.

1387. I suppose you would recognise that while the advantages of a combined mail contract, if it could be arranged, are apparent, the holding of a conference between the two peoples is dependent on the submission of some scheme or schemes by which it could be carried out ?—Yes.

1388. Have you any sort of a scheme in your own mind in this direction ?—No, I think you want to be very familiar with shipping to express an opinion of any value on this subject.

1389. **(Mr. Sinclair.)** Notwithstanding all you have been able to tell us, and other witnesses have told us, about the evils of combination, combination still exists in the case of South Africa at the present time, does it not, in the matter of shippping ?—I should imagine it does.

1390. When the new mail contract of which we have heard was entered into, the Union was forced, as it seems to me, to accept a lower speed than had been attained twenty years ago. Was not that in consequence of combination ?—Well; no. They have not accepted a lower speed rate than twenty years ago, it is a better speed rate.

1391. I understood you to say that the speed rate twenty years ago was quicker than it is to-day ?—Yes, of certain ships, but that was not under the contract.

1392. I am seeking, in the meantime, to make a comparison between the contract rates which the Union Government assented to quite recently and the rate at which the voyage was done by the "Scot" some years ago. I suggest that the Union is in its present position as regards that contract owing to the combination and that it was obliged to accept that speed rate in consequence. Is that so?—Well, the Union found that they could not, as I understood it, get better terms for speed without paying a very much higher amount of money.

1393. But you told us there was practically no competition ?—Because we advertised in London, and I do not think we got many competitive tenders.

1394. I suggest that the absence of competition was due to an understanding ?—Of that I do not know definitely; the only thing I have in my mind is that there are many shipping combinations all over the world.

1395. Is it not the case that every Colony of the Empire finds itself at the present day at the mercy of freights—putting it broadly ?—I think there is a great deal to be said for that.

1396. Is it not a fact that the ships which pass your port to and from Australia and London carry no cargo from the Cape to London or from London to the Cape ?—I cannot definitely say if it is so, but if they carry no cargo between the Cape and London, it would appear it must be due to some arrangement.

1397. That is precisely the object of my question ?—An arrangement which I would imagine was not entirely in the interests of South Africa.

1398. Is there any other way—in view of the existence of shipping combinations all over the world—by which a Dominion can protect its people, who have, as you very pertinently pointed out, to pay this increase, except by putting on ships of their own ?—Oh, yes, I think there are.

1399. Will you kindly let us know what they are ?—In the first place, we had a considerable amount of Government transport, and we could always use that as a lever to encourage other people to come into the trade.

1400. That is a factor, but it has not been operative here, has it ?—It did operate before, because I remember a period of time when I thought the Currie Company was unduly raising our rates, that I submitted to the Agent-General in London instructions to call for tenders for Government freight. He replied that he could not get any, so I said he must go to the best broker he could find in the City and hire an ocean tramp. He said that it would not be possible to fill her with cargo with the amount of goods that we had available to be sent to South Africa. I then told him to advertise her tonnage at a considerably reduced rate and fill her up with general cargo. I found that such was the effect of this action that our terms were accepted by the Currie Company within two or three days afterwards.

1401. Is there anything else that occurs to you ?—No, personally I think you must keep the Government out of as many trade operations as you can. As a rule, I think Government trading institutions are not worked on a very economical basis. That is my experience.

1402. Does not all this evidence point to this conclusion—that the Dominions are largely at the mercy of the shipping interests ?—I think so, to a large extent.

1403. You do not favour State competition I gather, but putting that question on one side for the moment; if a State saw that its only chance of protecting itself would be by building its own ships, it would have to build them or not build according to its ability, and if it were unable to do so, it would be practically powerless ?—It would have to pay. I do not think the shipping companies are run on a philanthropic basis.

1404. Certainly not. Now were those rapid voyages of the "Scot," and other vessels that you mentioned, under competition of one company against another ?—As far as I remember, the "Scot" belonged to the Union Company, and the "Dunottar Castle" was the reply of the Castle Company—that is Donald Currie and Company.

1405. In other words, that was the result of competition as against combination ?—Certainly, and unfortunately the Cape Government, although they had a mail contract running over a certain period of years, allowed the two companies to combine.

1406. How were the mails carried before ?—They were carried alternately. Each Company had a fortnightly service. After the contract was given out in 1900, those two companies combined. They had the permission of the Cape Government to do so, because the Cape then thought that by the combination everything would have been materially improved. How the improvement went, I should think the purchase of the Union-Castle Company by the present Company will indicate. People can look at the price paid and form their opinions for themselves.

1407. Does not the example you have given furnish a good illustration of what took place in the carriage of mails by competitive companies ?—Yes.

1408. You would probably get greater speed and activity on the part of each company if there was competition. Each company would then endeavour to outspeed its rival ?—Competition always brings activity.

1409. With the larger boats you have spoken of as being necessary to give increased speed, they would, of course, have greater carrying capacity, and require larger cargoes ? I suppose it is reasonable to assume that the gradual development of the Dominion would provide sufficient additional cargo to occupy the additional space ?—I think so. So far as South Africa is concerned, we have only touched the fringe of our development in this country. Our population has been too much engaged hitherto in speculative undertakings in the past.

1410. As to cables, the week-end rate was designed originally, was it not, in order to be used for social purposes, as distinct from commercial purposes ?—Yes.

1411. I think you agree that 30 words are far too numerous for the mere sending of a social message ?—Yes.

1412. That number might be very considerably reduced without any substantial loss to the companies ?—Yes.

1413. Is it not a fact that under the present rate of 30 words for 15*s.* the week-end cable is used for business purposes ?—I do not know.

1414. Well, at any rate, the reduction to a lesser number of words would maintain the purpose for which the message was designed, and if it is used for business purposes for which it was not intended, it would prevent that ?—Yes, I suppose the real intention of the week-end cable was to anticipate a letter.

1415. **(Sir Rider Haggard.)** I think you told Sir Alfred that as a last resort, you would approve of a

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State-built and controlled mail service of steamships?—Yes, if I could not get any relief in any other circumstances, and what I considered fair treatment.

1416. Well now, what do you consider fair treatment? What would be your last resort under which you would urge State action?—Do you mean as regards speed?

1417. Well, take it all round, as regards speed, rebates, freights, and so on?—If you want my personal opinion, I would have maintained that the interests of this country would have been materially assisted by a 14 days' service.

1418. Supposing in future you are unable to get a 14 days' service, would you then be prepared to urge that the State should, either by itself or in conjunction with another Dominion, take the matter into its own hands, and have a State-owned line?—I would not say that. I would far sooner see it done by independent companies, but I would like to see the whole calculation worked out, as I said before, by experts, to see whether it was possible to ship to-day cheaper than twenty years ago, in order to meet that argument that increased speed means increased cost under new conditions.

1419. Suppose that it was shown to you by your experts that it was perfectly feasible to increase the speed at no very great increase of cost, and yet you could not obtain it, would you then be prepared to urge that the State should take the matter up?—I would personally.

1420. **(Mr. Garnett.)** I think you said that you tried to charter a tramp steamer and you were unable to fill her?—Yes. The trouble we had was in this way. In chartering the steamer we could not fill her with South African Government supplies. My reply to that was that we could fill her up by giving an extremely low rate of freight to other people who were desirous of sending cargo here. I use that simply as an illustration to show what a lever like that can do.

1421. If the exporting merchants in London had to trust to tramp steamers, would they not also be in a somewhat similar condition? Would they be able to fill the boats?—The individual, of course, is never in the same position as the State.

1422. I am coming now to the question of freights on merchandise. In business is not time of the essence of the contract?—Yes.

1423. If time is of the essence of the contract in business, is it not of very great advantage to the importers in this country to be able to ship by steamers leaving at regular intervals and arriving at regular stated times?—Of enormous advantage.

1424. And if it is of advantage to them as great importers, is it not also of advantage to the people they have to supply?—You mean in regard to a regular service?

1425. If I were an importer here and had to rely on certain sailings and arrivals, is it not to the advantage both of myself and my customers up-country that they should be regular?—Yes, it all depends on what you pay for it.

1426. That being so, time being of the essence of the contract, as a trader, is it not sometimes worth more to me to ensure that regularity than have a lower freight with uncertainty as regards the time of delivery?—Yes, as a trader I am perfectly certain also that if he had to remain solvent, somebody has to be made to pay.

1427. But is it not to the advantage of the community that that should be ensured?—Not if they pay too much for it.

1428. Does not the question of advantage depend on whether you are paying more for what you are getting than the thing is worth?—Yes, that is the whole thing. I think the advantage of a regular service is very great.

1429. In regard to these forward rates, is it not to the advantage of the community at large that the importers of the country should be able to quote for long distance delivery at a fixed rate so that their customers may know what they will have to pay?—Yes, if you do not pay too much for it.

1430. And does the mercantile community generally pay too much?—I should say they do.

1431. You do not think this regularity of sailings and rates is to the general advantage of the public at all? You think there may be trifling advantages, but not sufficient to counterbalance the corresponding disadvantages?—On the whole, regularity and stability are great advantages, if we do not pay too much for them.

1432. Is it not a fact that the Merchants' Association has been engaged in a long struggle with the steamship company in order to secure the most favourable rates of supply?—Yes, but one of our biggest merchants here is entirely opposed to the Merchants' Committee in London, and that is Mr. Jagger, who is still fighting, along with other non-signatories, in the interests of the country.

1433. Are you or are you not of opinion that regularity of service in sailing and delivery is of considerable advantage first of all to the merchants of the country, the importers, and secondly, to all his customers?—Yes, provided it is not obtained at too great a cost.

Mr. LUDWIG WIENER, called and examined.

(*For the evidence of this witness on "Railways, Harbours, &c.,"* see *p.* 104.)

1434. **(Chairman.)** I think you have been in a large way of business in Cape Town for a great number of years?—Yes.

1435. You gave evidence before a Select Committee on Railways and Harbours?—Yes.

1436. We have read the evidence given before that committee, and the Commission is anxious to learn your views on the subject, especially as to the position of Cape Town as a great seaport on the ocean route and its future development?—I have given information to the Government on several occasions on that subject, especially since the Panama Canal route came to the front as an additional competitor for ships rounding the Cape of Good Hope eastwards. I have always been one of those who strongly advocated the interests of Cape Town and the Cape of Good Hope route in competition with the Suez Canal route. When that route was opened we lost a great deal of shipping which used the world's highway of the Cape route. But when Natal was able to produce a good quality of coal at reasonable rates and when coal-mine owners woke up to the importance of selling that coal at moderate prices instead of trying to make a huge profit out of it, the price was brought down very considerably. That fact of reasonable railway rates to the coast from the mines has assisted us very much and has proved to be a strong inducement in attracting a large number of ships to take the Cape route, eastward bound. I am one of those who believe that we can still recover a good deal more of the traffic which at present goes through the Suez Canal and even show a good face against the Panama Canal. I am not speaking of the regular liners, which are bound to speed and time, but in respect to a number of ocean tramps which I find at the present time go eastward in ballast to a loading port. I think last year or the year before 1½ million tons of shipping passed through the Suez Canal in ballast, so it is only a matter of calculation with ships to take the Cape route where they can get cheap coal though the distance is longer; immense benefit would be reaped by this port if a considerable portion of that traffic were induced to take the world's highway round the Cape eastward. Next our regular mail steamers, the Union-Castle Company have for a number of years combined with other lines of steamers, forming a powerful ring, with deferred rebate system and made

us pay the highest rates of freight in the world, considering the advantages South Africa offers to ships engaged in this trade by cheap coal and low port charges and a fair weather passage from England.

1437. Can you give us figures to support that statement?—We are paying from 25*s.* to 45*s.* per ton. The rates vary at the different ports of the Union to the extent of four or five shillings a ton, but taking Cape Town as a standard the rates run from 25*s.* to 45*s.* according to the classification.

1438. That is to say, freights from here to London?—No, I mean from Europe to Cape Town. Of course, one of the reasons always given in the past for these excessive freight rates was that coal was expensive and that there was no return cargo. But now coal has come down to such a price that it is possible for ships to coal here with the best Natal coal at great saving. If we could induce the ships that go eastward *viâ* Suez Canal in ballast to take the Cape route, to go on the berth in London and take cargo at a reduced rate of freight, we would reap the full benefit of our geographical position, with cheap coal thrown in. Since the new mail contract things have in no way improved, for the mail company and the old Conference lines have formed a new combination and under threat of shutting out shippers' goods they forced a large majority of shippers to sign an agreement, by which they bound themselves only to ship per new combination steamers. In that way our hopes of an open freight market were frustrated, and further, under the new mail contract, all the the Government freight (about 250,000 tons) is pledged to the mail company for five years; this also greatly militates against an open freight market.

1439. What rate was that?—About 19*s.* right round, or something like that. I really believe that the Railway Administration, who are very large shippers, did use its influence to cut that period down to about five years as already stated, though the mail contract is for ten years. Why I mention it is this. If Government freights had not been fixed up we could use that as a lever to induce other vessels to lay on outside the mail boats, and by being able to offer cheap coal here for bunkering purposes and being able to discharge quickly at all the ports from Cape Town to Natal, many ocean tramps would have made use of this opportunity to our advantage. These ships, after discharging their cargo, could then load coals as cargo at Durban to eastern ports, selling the coals there and then loading cargoes for the homeward voyage *viâ* Suez. By that means the ocean tramp steamer would be earning all the way out from England and all the way back again. It stands to reason that under such circumstances the ships taking up this trade could offer freights very much less than are offered by the combination at the present time.

1440. (**Mr. Campbell.**) Your suggestion is that tramps should bring cargo out here, then ship Natal or Transvaal coal from here or Durban, say, to India or to some Eastern port, and then get a cargo home?—Yes. Very often they do it now. For instance, the Clan Lines do it. They get high freights out to this country, they take coals to Eastern ports and then they make the return voyage again *viâ* the Suez Canal. At the present time a combination of coal holders has been formed in the Transvaal, which ships largely from Delagoa Bay to the East, to supply the railways in India; this is done under a London contract covering something like a quarter of a million tons. They have by so doing considerably stopped competition for Indian trade in coal; the outside or open mines are not many.

1441. What does that combination do?—As I say, that combination has contracted with one large contractor in England, who has himself secured the contract for a large quantity of Transvaal coal for the Indian railways. He draws his supplies from this combination, and they cannot sell coal to anybody else. But there are still some companies who are outside of that combination.

1442. What ships do they send the coal by?—Ships that are discharging coal all the way from Cape Town to Delagoa Bay. And a number of ships from Australia and elsewhere, laden with timber, breadstuffs, &c. discharge their cargoes at Delagoa Bay and load coal eastward.

1443. Is there a large trade now being done in coal from Natal ports or Delagoa Bay to India?—Yes. Well, Natal is rather disappointing, I thought they would do more than they have been doing. I am speaking of cargo coal outside of bunker coal, though things have improved lately.

1444. Can you tell us what is the amount of Natal coal exported every year to India and Eastern ports?—I think it is about 150,000 cargo coal, and the total bunkering at all ports for 1912, 1,500,000 (about).

1445. What number of tramps do you get here?—We have very few. All the ships that call here, except those that come from Australia with timber or flour, mostly belong to the Conference lines and are in the combination.

1446. So that the free tramp hardly exists, I understand?—Yes, that is so at the present time, but we used to have quite a number of them.

1447. Since when has that trade gone out?—I think, perhaps, twenty-five years ago.

1448. Owing to what reason?—Owing to the combination. First there was the Union line and the Castle line. These two lines combined and then the Conference lines joined them.

1449. You said just now that freights to this port were higher than on any other trade route in the world?—Yes.

1450. Can you give a comparison to substantiate that?—Take the freights to the Argentine. Under the new contract we have a rate fixed by Sir Owen Philipps for the homeward freights on maize; it is now a fixed rate of 10*s.* a ton on maize, but on other articles, such as skins and hides, Buenos Ayres is an open market and their rates are often lower than ours. They have at times a rate of 7*s.* 6*d.* for maize, and half the rates that we pay for wool and skins. Freights from Australia are also lower considering the distance.

1451. How do the rates compare?—Australia is very much cheaper than ours, though our geographical position on the world's highway is an advantage to us, and at the same time we can offer cheaper coal than any other port in the world. Therefore we should have cheap outward freights, but that is not the case owing to the forced agreement with the Conference lines.

1452. You said just now that there is no open freight market here. What do you mean by that precisely?—They used to give rebates until the new contract came into force. Under the new contract, with the exception of a certain number of merchants, who have pluckily held out from signing an agreement, all others have bound themselves to support these lines absolutely for a given period, running from six months to twelve months, and to ship by no other vessels. That arrangement was entered into after the new mail contract came into force. Formerly there was a system of rebates, which was retained for eighteen months. The rebates varied from 5 to 10 per cent. on freight collected.

1453. Have you considered the question of making Cape Town a port of call on the Australian mail route?—I cannot say I have devoted a great deal of attention to that point. They want speed and regularity. Well, the Canal would give them that. On the other hand, you have a lovely fairway passage by this route from England. Then in future comes the Panama Canal. We have now steamers coming from New York and going to Australia *viâ* the Cape. Those, of course, we will lose when the Panama Canal is open.

1454. Well, there are possibilities of vessels going out to Australia *viâ* the Cape and home *viâ* the Panama Canal, and so going round the world perhaps that would make it level?—Yes.

1455. (**Sir Alfred Bateman.**) I think you said you had no tramp steamers?—Yes.

1456. And you rather wish you had them?—Well, we have been wanting them as soon as we are a free port for ships.

1457. But when the trade is brisk you lose the tramps—you cannot rely on them to do the business?—We cannot altogether rely on them. We may lose a number certainly, but I would take my chance. If freights go up we will have to pay, but when they go down, we get advantages which at present we do not get.

1458. You have a regular service now?—Yes, and very expensive too.

1459. It is perhaps a little higher, if anything, than seven years ago?—Yes, and in spite of getting coal here for about half the price ships formerly had to pay.

1460. Are you speaking of freights out or home?—Out. After all, the freight home is always given forth as a reason for freights out being high, because we have so many valuable articles of no bulk, like diamonds, gold, and feathers, which do not fill ships. If we can encourage tramps to come here, they can bring a cargo outward, and then take coals eastward to a loading port there.

1461. Why do they not go now?—For the last ten years all the freight was handled by the combination at a rebate of 10 per cent. The combine held this rebate terror over our heads, amounting from a 10*l.* note up to two or three thousand pounds and more.

1462. That is all gone now?—Yes. Rebates have been made illegal. But they have humbugged us in some other way.

1463. You have to sign a contract?—Yes.

1464. And if you do not sign you are in danger of being shut out?—Yes, they have tried to do it.

1465. In the olden days, did you stick on to the Houston Line as long as they were outside the ring. You remember they held out for some years?—Mr. Jagger had a contract with them, and went on with them at low freights even after they had come into the ring. He still had the low freights.

1466. Yes, the Houston Line was absorbed by the Conference lines on the understanding that the contracts which had been made would continue till they expired. Well, you did not back up your opinions? You came under the Conference lines?—Yes. Well, on a matter of that kind it is a question of whether shippers will stand together. You see some of them are strong and some are weak.

1467. With the rebates, you could not help yourself. Can you tell me anything as regards the South African Merchants' Committee in London; do you consider them representative of the trade here?—No, I do not, and I never did.

1468. Why?—I have in the past attended some of their meetings myself when I was in London, as a matter of courtesy, being asked by the Chamber of Commerce here as Chairman to do so. I reported that it seemed to me that the members were very sympathetic to the combines, and I did not think that our interests were sufficiently looked after in that respect.

1469. You thought they were too friendly with the lines?—Well, the word "sympathetic" is a very good term for it, I think. And speaking for the Cape Town and Associated Chambers of Commerce, I do not think they have many friends here.

1470. Why do you not have a proper combination of that kind? If the South African Merchants' Committee is not a good body, why do you not form another one, and then you would be in a better position to deal with the lines and make a bargain? I have been fighting to that end—we are trying to establish such a body here now, with Government assistance.

1471. You will then be in a strong position?—How can we, if the largest shippers—the Government—have tied themselves with all their freight hand and foot for five years to the Mail Company.

1472. In regard to their own shipments?—Yes, the Government would have been a factor in inducing the ship to lay on getting cheap freights for themselves and others. I will give you an illustration on a matter which I carried personally through some years ago. This will show you the disadvantage which we would have been placed under in regard to the difference in rates of freight charged by the combination when they have the power. The Harbour Board were building the very pier which we are now going to pull down. That was in 1890. I went to England and America. The engineer said that the piles would have to be imported in one piece as they could not be riveted here. They must come out whole, and they were 50 ft. in length, and in the estimate a certain rate of freight was provided for; if higher freight was charged it would increase the cost very largely. When I got to London, I went to Sir John Coode, our Consulting Engineer, and submitted the matter. I said: We will go to the Agent-General and get the Mail Steamship Company to quote the lowest rate. They asked us 210*s.* per ton measurement. This was very excessive. I went to our agents, Chalmers, Guthrie & Co., and said: Can you give me quotations for this freight? They went round in London, and found that even among the tramp steamers there was a difficulty in getting what I wanted. I then went to America, and when I got back our agents said there had been a quarrel among the shipping people, and a tramp company had come forward, offering three ships, provided we give them quick despatch to Cape Town and rate of freight of 45*s.* instead of 210*s.* We filled them with jetty material and other Harbour Board stuff at a saving of 8,000*l.* in freight.

1473. They were charging very high prices because you wanted special tackle?—If we had been then in the same unfortunate position as we are to-day, they could have insisted on the rate asked. I merely want to point out to you how exorbitant their charges are when they get a chance to put it on.

1474. **(Mr. Campbell.)** You spoke of a combination of mines in Natal, and of there being some mines outside of the combination?—Yes, in Natal, but they are of no consequence, and the quality of the coal is not good.

1475. Is there a combination of Transvaal mines as well as of Natal?—Yes.

1476. The combination you spoke of was the Natal combination?—Yes. It is the Transvaal combination which has a contract with a party in England, who in turn has a contract for a lot of coal for the Indian railways.

1477. In regard to these ships, we had evidence that no cargo is carried here from London or Australia except in the ships belonging to the Conference lines?—No, I do not know of any.

1478. Are there any?—No, I do not think so. Nearly all the ships that come here with South African cargo are in the combine.

1479. Are there any ships outside the liners with which the Government has an agreement?—Yes. The mail company run a number of steamers in addition to the mail steamers, called intermediate or extra steamers.

1480. Are there any other boats except those that carry cargo from England to here?—There is the Clan Line.

1481. Do they carry cargo from England to this port?—Yes, and there is the Houston Line, the Bucknall Line, and a number of others.

1482. Are there any boats outside the Conference lines?—Not from England, nor from America, nor from Hamburg.

1483. We had it in evidence in England that somewhere over 100 ships are leaving the port of Hull for South Africa. Do any of those carry cargo out here?—There is some mistake. I know the Hull people have approached us to divert some of the traffic away from London, and I said: Why do not you start an independent line in competition?

1484. None of these boats that come from Hull are independent?—No. I know of none coming to Union ports.

1485. The German boats trade round here?—Yes.

1486. They bring cargo only from Germany—they do not carry from England?—Yes; they are also in the ring as far as the rates of freight are concerned.

1487. How do the rates from Germany compare with those from England?—They are the same.

1488. They are in the combination too?—Yes. The only thing we have gained under the contract is that our homeward freights are not subject to restrictions as they were before.

1489. In what direction?—Well, before, you see, we got rebates and you could not ship by any ship you liked without consent. There is no consent required now. Before, the conditions were very peculiar. A ship used to call from Australia, discharge 1,000 tons of wheat, say, and you might have 1,000 tons of maize lying on the wharf here, or wool. By an agreement, they would not take our stuff, and if we did ship, of course we lose all the rebates due to the shipper.

1490. **(Chairman.)** But all that is put an end to? Yes.

1491. **(Mr. Campbell.)** These conference line rates are specially high as compared with any other principal trading place, but while that is so you get some benefits out of the conference, do you not? Free carriage of stock—cheap carriage of maize?—That is quite true. But I do not think there is so very much in it. First of all, there are a good many restrictions on these privileges.

1492. What is the quantity of maize exported, very large?—No. It was three years ago, but of late it has been smaller, because of the drought, which has been very bad in the Free State and in the Transvaal as well as Natal.

1493. It has been large but it is not now?—I think it is a very foolish business myself this shipping of maize to England and then importing it again in the form of bacon and hams and butter. It is not a very economical proposition. The Commission, perhaps, does not know that we were placed in this peculiar position. If a man in Cape Town wants to buy a ton of maize the price is the cost of this article plus 20*s.* railage, but if it is for export the railage is 10*s.* a ton. So that the man in England got his feed-stuffs with the freight added for the same as we paid here.

1494. And in spite of that there is not much exported?—No.

1495. **(Sir Rider Haggard.)** You spoke of having got rid of a rebate and then you added: "but they get us in another way," or words to that effect?—Yes, by this contract which we have to sign.

1496. What is the exact form of that special contract?—All those who did not sign would have their goods shut out—that was the threat—and a large number of merchants in London very much favoured the agreement, but a large number here refused to sign it.

1497. Do you really allege that people who refused to sign the agreement were threatened that their stuff would not be carried?—Yes, that is the point that is now being arbitrated upon.

1498. Do you mean to say that unless they agreed to sign some contract which was outside the ordinary arrangement they were told that the goods would not be carried?—Yes.

1499. And is that within the common law that any carriers who refuse to carry goods cannot be made to?—That is now under arbitration in London.

1500. **(Mr. Sinclair.)** In your opinion, South Africa is now suffering severely owing to this combination, making freights higher, in your opinion, than they ought to be. Can you tell us whether any rough calculation has ever been made as to what in a year the excess rates would come to?—Yes. Well, the cargo landed last year was nearly 3,000,000 tons. If you got 5*s.* a ton reduction that means 750,000*l.* But it is more than that with an open freight market.

1501. That would provide a substantial interest on the capital expenditure if it were decided to build boats of your own?—Yes.

1502. Do you favour the State intervening where it is to protect the community from high freights?—Yes. I have advocated the Government acquiring the coal mines also, so that they would not be entirely in the hands of private interests.

1503. Have you anything to say to the Commission about speed?—You are speaking of the mail steamers. Naturally, the world does not stand still. We are all anxious to get steamers here as quickly as possible, and I think there is a general feeling among the mercantile community that it should be possible to accelerate the mail service. But it is said that it means expense, and Parliament as constituted by us, which represents a large farming community and a considerable backveldt element, who are in no great hurry, did not like the increased cost.

1504. I wanted to find if you considered that the speed attained under the recent contract is adequate for the sum that is already paid?—That is rather a technical question. But, considering the advantages that the mail steamers get now as compared with a number of years ago, I do not think we have been favourably treated as regards speed.

1505. I understand you were getting as great speed twenty years ago as you are to-day?—Yes, nearly.

1506. **(Sir Jan Langerman.)** You said just now in effect that to meet the difficulties, the Government might intervene and build ships?—Yes.

1507. But should not that be left to private enterprise?—No.

1508. Why should the Government want to build?—I am a bit of a socialist myself. It is in the interests of the people of the country.

1509. But there is a time when the importers and shippers must help themselves—the Government cannot do everything?—But I say, if we can control the railways representing many millions I think we should be able to control a line of steamers—very much like the Canadian Pacific Railway. They do not want to do all the sea transport, but they want to control the rate of freight and thus fix the price—just to control it.

1510. You expressed some disappointment that the cargo coal shipment was not what it should be here?—Yes.

1511. Was it not due to the want of railway accommodation. No, I am speaking of Durban; I do not think so. I was on the Ports Inquiry Committee and had an opportunity of looking into the matter and I think the mercantile community at Durban themselves were at that time a little to blame in not pushing it enough.

1512. Because the complaint was that Natal said there were not enough railway lines, and the Government have undertaken to duplicate the line?—Yes, a portion of it. The controversy is still going on. Somebody wanted to have a mineral line built, which I certainly rather support in view of the future.

1513. Whatever line is adopted it is all with the view of increasing the output of coal at the port?—Yes.

1514. You hope to divert a lot of trade from the Suez Canal here?—Yes, and also from Panama.

1515. But if you take the distance through the Suez Canal into consideration compared with the Cape, is it possible then to induce ships to come here?—I should like to put in a report which I drew up for the Government, and which deals with the whole question.* It is possible first of all, I advocated, to free all our ports of ships' dues, as an advertisement. Ever since 1870, when the diamond fields were discovered our farmers have had golden years. In 1886 the discovery of goldfields has helped to maintain things. But the time will come when that will not hold good any more, looking ahead. I want to provision ships here. I want ships going eastward to call. I want to help the farming industry in providing a home market by provisioning ships with what they produce. Then another essential is cheap coal at Union ports.

1516. Is that possible in face of the combination?—No, it is not; that is why I advocated Government owned mail boats—not so much to carry all the freight, but to fix the rates of freight and control them.

1517. But could they fix the rates or have their own line while the contract is in existence?—No, but these proposals were made at the time of calling the tenders.

1518. It is now hung up for fifteen years?—No, ten.

1519. Is there not an option of five?—No, the freight contract is only for five, fortunately.

1520. If the Government want ships they should begin now?—Oh, no, I do not think it is necessary, seeing that they can build a Dreadnought in a couple of years.

1521. **(Chairman.)** Can you tell the Commission at what price bunker coal was sold in Cape Town at the

* Not reprinted.

"Scot" period in 1890?—No, there was none sold here then. It was all imported, and cost 35*s.* or 40*s.* a ton.

1522. As compared with 22*s.* or 26*s.* now?—Yes.

1523. Is that about the difference in the cost of bunkering?—Not for bunkering, but for the coal itself; cost of bunkering extra.

1524. What is the rate of freight from Natal to India on coal?—That varies. It may be 8*s.* to 10*s.* or more. Some of the ships buy the coal themselves and make what they can at the other end.

1525. Is that a large business—ships bringing goods out here and then taking coals out to India?—Yes. Some of the ships I mentioned of the conference lines—outside the mail boats and intermediate boats that go eastward—they are not allowed to take any freight homeward—they must go eastward or return to England in ballast.

1526. What lines are they?—The Clan, Bucknall, Houston, &c

1527. And they have a triangular tour?—Yes; and I want similar tours but with an open freight market. People are so afraid of fluctuations of freight, but it is such a small factor in comparison to the value of goods. Is there a single commodity that remains stationary from January to December? Why should freights be a fixture?

Mr. K. SPILHAUS, of Messrs. W. Spilhaus & Co., called and examined.

(*For the evidence of this witness on "Bills of Lading" and "Bunker Coal,"* see *pp.* 88 *and* 105.)

1528. **(Chairman.)** I understand that you are ready to give evidence on the question of Freights and Bills of Lading?—I am ready to help the Commission in regard to any questions that are asked.

1529. What is your view as to the present position of the freight market here and the conditions under which freights are established?—I am in favour of an open market, because there is still a working agreement between several of the principal lines trading to South Africa, which prevents merchants making use of outside tonnage.

1530. In other words it amounts to this, that you have to be a permanent client to be certain of getting the best treatment?—One has to be a contractor to get the most favoured treatment.

1531. And that, you think, is detrimental to trade?—I consider it is a disadvantage.

1532. How do you propose to remedy what you consider an unfortunate position of affairs?—Not by legislation.

1533. By what then?—In my opinion the only thing is for the Government to keep its freights open. If the Government did not contract for its freights it could give them to other lines and support outside tonnage whenever they considered it necessary to do so.

1534. The Government being tied to the combination for their freight takes away the necessary basis from any other plan?—Quite.

1535. What would you say respecting the general level of freights here compared with freights to and from similar countries?—That is a very difficult question to answer, because one has to take different conditions into consideration; for instance, there is the question of return freights and that sort of thing. On the whole I think we are on a higher level than any other country, although I should say that our trade might not be quite as constant as in other countries. I would only refer to the maize trade, which we all anticipated would be a great trade some years ago and which has not developed as we expected owing to the continuous bad seasons. That is a factor which shipping companies have to take into consideration when they arrange their rates and freights.

1536. Why do you consider that freights here remain at so high a level. Is it due entirely or mainly to the Government arrangements with the Conference lines?—I think that is chiefly responsible.

1537. **(Mr. Tatlow.)** Regarding the export of maize, to what do you ascribe the falling off?—To bad seasons.

1538. You are satisfied with the rate?—Yes.

1539. **(Sir Alfred Bateman.)** I think you gave evidence before the Shipping Rings Commission?—Yes.

1540. And you are still not quite satisfied?—We did expect a different committee from the one we have now. We expected a committee more or less in the nature of a Court of Appeal, but the committee which has been appointed is just simply a talking machine and of very little value. You will remember that I suggested that the dissatisfaction with the Conference lines was more on account of the then administration of the system than on the principle, and I thought a good deal of friction might be prevented and a good deal of dissatisfaction might be removed by the formation of a South African Committee of ship owners, merchants, and representatives of the Government to deal with any question that might arise.

1541. That was rather blessed by us in our report was it not?—It was blessed by the Commission, and the Government also gave them their blessing and the mine owners said it was a good thing. The Government have refused to appoint a representative, and the shipowners have refused to appoint a representative, and in any case they are not going to be bound by the representatives of the Committee.

1542. So you are still left with the South African Merchants' Committee in London?—Yes.

1543. But you have got rid of the deferred rebates?—Yes.

1544. I think you said that South Africa was rather badly treated in regard to rates. How do you compare with the Argentine, which is about an equal distance from England?—Of course, it is a very difficult thing to compare home freights, you have to look at the outward freights as well. There is a rate of 7*s.* 6*d.* on maize from the Argentine to the United Kingdom and when you bring that to the notice of anybody here he says at once that ours is a high rate. We pay 10*s.*, but at the some time the rate of coal to the Argentine is very likely 30*s.* a ton, so it counter-balances.

1545. And you do not think you are very badly treated in that respect?—Well I should prefer an absoluteiy free hand, so that matters would right themselves; at the same time I should not like to say that we are badly treated.

1546. Although you get stability in freights, the possibility of getting freights homeward in bulk at a lower rate might have something to do with the freight charge and a great proportion of your exports are of very small bulk?—Yes.

1547. Now the converse would be the case in the Argentine?—Yes, they have more plentiful homeward cargo.

1548. Has that anything to do with it?—I am quite sure it has.

1549. Both the outward and homeward freights?—Yes.

Cape Town, 5 and 6 March; East London, 16 March 1914.] Senator the Hon. MARSHALL CAMPBELL, Mr. W. W. HOY, Mr. C. H. BOCK, Jnr. [*Communications: Post, Telegraph, and Steamship (including Freights).*

Cape Town, Thursday, 5th March 1914.

Senator the Hon. MARSHALL CAMPBELL, called and examined.

(*For the evidence of this witness on the "Sugar Industry" and "Forests,"* see *pp.* 183 *and* 289.)

The witness made the following statement:—

On the subject of the evidence which was given before the Commission the other day in regard to the Union Government building its own mail steamers, I would like to say that I object to the Union Government doing any such thing. I have been a shareholder in these Conference lines for many years, although I am not a shareholder to-day. I think it would be a very serious mistake for the Union Government to do this.

1550. **(Chairman.)** You think that the Government service would be expensive and badly run, I presume?—Yes. It is impossible for a Government to run an industry of that description efficiently.

1551. Are you interested in maintaining cheap freights?—I am not interested in any line of steamships at all, but I believe in the rebate system—it keeps the market steady. In the olden days I have known freight to be sometimes as low as 7*s.* 6*d.* a ton, and the following month to be 50*s.* a ton.

1552. Then you prefer stability to cheapness?—Yes.

Cape Town, Friday, 6th March 1914.

Mr. WILLIAM WILSON HOY, General Manager of Railways and Harbours for the Union of South Africa, called and examined.

(*For evidence of this witness on "Railways,"* see *p.* 107.)

1553. **(Chairman.)** Have you any figures to show what proportion of Australian trade does come and did come *viâ* Cape Town?—No, but the number of calls in connection with the Australian trade is greater now than it was.

1554. Can you give us any detailed comparative figures?—Yes.

1555. I want to know the amount of shipping; what proportion that represents to the total: whether the absolute amount is increasing, and the proportional amount, both ways. Of course, the figures in each direction will be different?—Yes, you want figures in regard to the interchange of traffic between South Africa and Australia.

1556. No, I mean between England and Australia for ships calling here. In other words, it is your position in regard to the competition of the Suez Canal. I ask the question because it is conceivable that the proportion is largely dependent on the cost at which you can bunker here?—Yes, and, of course, with the larger vessel the probability seems to point to its coming this way instead of going through the Canal.*

* For information subsequently supplied by witness, *see* App. III., p. 85.

East London, Monday, 16th March 1914.

Mr. Carl Heinrick BOCK, Jnr., Wool Buyer, called and examined.

(*For the evidence of this witness on "Animal and Agricultural Produce,"* see *p.* 207).

1557. **(Mr. Campbell.)** Have you any complaint to make about the freights from South Africa home?—As far as the present state of affairs remains while we have stability of freights we are quite satisfied. But with the abolition of rebates there is, of course, always the possibility that a steamer may come in and set up a fighting rate, and that will upset the whole trade.

1558. You are quite satisfied with the present conditions?—Yes, as long as they remain.

Kimberley, Wednesday, 18th March 1914.

Mr. JOHN ORR, Deputy Mayor of Kimberley, and Member of the Kimberley Chamber of Commerce, called and examined.

(*For evidence of this witness on "General Trade Questions,"* see *p.* 156 *of* [*Cd.* 7707.])

1559. **(Chairman.)** You represent the Chamber of Commerce?—No, but I am a member.

1560. Do you speak for yourself?—Principally for myself.

1561. I think the first subject you desire to speak upon is that of cables between South Africa and the rest of the world?—Mr. Chairman, I have really no notes on this particular subject further than to say, that this matter has been discussed in the local Chamber of Commerce and it was felt that it was desirable, in the interests of the commercial community mainly, that a lower minimum should be placed on the week-end cables than we have at the present time.

1562. What do you suggest it should be reduced to?—At present the minimum is 15*s.*

1563. Do you suggest, or propose, to reduce the minimum number of words to 15 or 10?—I should say 15 or 20—15 would be preferable, I think, we can always work from the minimum upwards.

1564. Do you also attach any importance to the transmission of these cables by telegraph throughout instead of the present system under which they are delivered at the far end by post unless special instructions are given to the contrary?—Speaking for myself, I send a cable on Saturday night and it gets delivered in London on the Tuesday morning, I understand, through the post.

1565. Do you advocate delivery on Monday morning instead of Tuesday?—I do not think there is really any great advantage in that.

1566. Then you urge the reduction from the minimum from 30 to a lesser number?—Yes.

1567. Have you any suggestions to make with reference to deferred cables, that is cables at half rates?—No, I do not think so, except that we are bound down somewhat hardly in not being allowed to use certain terms in these cables which are considered as code words; for instance, they will not allow us to send the letter "T" or any other letter.

1568. It must be a known word?—Yes.

1569. They will not allow you to send figures either, I understand?—They will let you send them as words, you have to put them in full.

1570. Do you urge that figures should be permitted if they make sense with the rest of the message?—I should think that would be of great advantage in the same way as with ordinary inland telegrams.

1571. That is to say, you advocate the use of figures in deferred messages provided there are reasonable precautions against it being code?—Yes.

1572. With reference to these cables, is there any other point you wish to bring forward?—I do not think so; there is no other question except that, of course, the Cable Companies might see their way to reduce the ordinary charge for code messages from 2*s*. 6*d*. to a lower rate.

1573. You cannot have everything at once, and not being able to do both what do you suggest as the most urgent?—I should think what I mentioned at first, namely, a lower minimum for week-end cables. Of course, in regard to ordinary cables, most people use code language.

1574. Having to choose between one reduction and another you consider the most urgent is the reduction of the minimum number of words on the week-end cable, and certain alterations with reference to the deferred cables?—Yes, that is so.

1575. **(Sir Rider Haggard.)** Supposing you get your week-end cables lowered in price, do you think there is a large public which will take advantage of it?—I think so; I am speaking now, of course, not only for myself. I take it that any change which took place would apply to the whole of South Africa. I know that there are other firms who avail themselves largely of those week-end cables, and sometimes in my own experience I find it is difficult to work up enough words to send my full value.

1576. You are speaking of sending commercial cables?—Yes, principally.

1577. Not social cables?—No. I have no experience of that: the postal authorities would, of course, be able to give information on that point.

1578. Do you think that if the number of words or the price of these week-end cables was reduced, the commercial community would avail itself of that?—That is the feeling when conversing with other people on the subject.

1579. But it was probably more to meet the social requirements of the community that the Cable Companies introduced these facilities?—I do not know, but I can say that they are very largely used here by commercial firms—more largely than by private individuals.

1580. But my point is, was that the design of the Cable Company in introducing them, was it not rather that they might be of service to private individuals in a social direction?—No doubt they had that in view, but I think that they are more largely used by commercial houses.

1581. And do you think that you can fairly ask the Cable Companies to give you further reductions on those cables for the convenience of commercial houses, who, as a general rule, can well afford to pay higher rates. I submit that for your consideration?—Yes.

1582. **(Mr. Campbell.)** Does not the ordinary commercial man use code?—Yes, but even in commercial businesses you cannot include everything you desire in a private code. I am speaking now of my own line of business.

1583. On the general average it would be very much cheaper to code messages than use any form of deferred messages, would it not? Speaking from my own experience I use both.

1584. And you found that the deferred cable message pays you as a business proposition against the code?—The deferred cables are used very little. It is either the code or the week-end.

1585. On what ground would you base the assumption that they would be largely availed of by commercial people if they were cheapened?—In this way, I think that certain messages would be sent that perhaps are not sent to-day, because at the price of 15*s*., people say it is not worth it. If the price were 7*s*. 6*d*. or 10*s*., they might make use of it.

1586. As a matter of fact is not the South African Government already paying a certain sum per annum on the loss which is made on the Eastern Telegraph Company's business?—I am not in a position to say.

1587. Suppose you knew that that was a fact, would it make any difference?—Of course, I should not have such a strong argument, but I am only speaking from a commercial point of view when I say this would be an advantage.

1588. And you think it would be extensively used by commercial people, more so than by private users?—I am not speaking so much of the deferred cable as the week-end cable.

1589. **(Mr. Sinclair.)** Do you use all three systems of cabling for the purposes of your own business, that is the code, the deferred, and the week-end?—Speaking for myself, I only use the week-end and the ordinary code cable.

1590. Do not you find that the deferred cable is really at a disadvantage as against the code message, having regard to the disabilities that it is under?—Yes, I think it is.

1591. If you wanted to send a deferred cable with the letters f.o.b. or c.i.f., which have a well-known meaning, have you not to pay for those letters as three words each under the deferred system?—Yes, I think so.

1592. Do not you think that it would be an advantage if a week-end cable sent to you from England could be telegraphed on its arrival in the Union?—Yes, certainly. I usually send my week-end cables on Saturday night, and I have to pay 1*d*. per word for transmitting them over the Union wires.

1593. Do the week-end cables as they exist at the present time come into competition with the deferred?—I think they do.

1594. You told us that you used the week-end cable for your business purposes?—Yes.

1595. That was not originally intended, was it; the intention I suggest was that the deferred cable should be used for business purposes and the week-end cable for social purposes?—Yes.

1596. It has drifted into the use of the week-end cable for business purposes?—Yes, I take it that is so. In regard to the deferred cables, of course, you can send so little, they cost just half the price of the others, you can only use them for very very short messages. I should say they would be used more largely by private individuals, that is deferred.

1597. By those people who do not have a code?—Yes.

1598. **(Chairman.)** You say that these week-end telegrams are used considerably for business?—Yes, I believe they are largely used here.

1599. Is it new traffic, that is, if the week-end facility did not exist, would these cables be sent at the full rate or would they not be sent at all?—I think in a good many cases they would not be sent at all, or possibly, if they had not the week-end cable the ordinary cable might be used to a certain extent, but I think only to a limited extent.

ORANGE FREE STATE.

Bloemfontein, Friday, 20th March 1914.

Mr. G. SMETHAM, Secretary of the Bloemfontein Chamber of Commerce, called and examined.

1600. **(Chairman.)** I believe you are Secretary of the Bloemfontein Chamber of Commerce?—Yes.

1601. You appear to give evidence on the subject of week-end cables and other improvements of the Cable service?—Yes.

1602. Will you kindly tell the Commission what your views are?—It is only a small item. The position, as far as we are concerned, is that the present minimum seems to be too high, and it is the opinion of the Chamber, and, I think, of the public generally, that if the minimum could be reduced it would be of very material assistance in regard to inter-communication between the Mother Country and South Africa, both privately and for business; there are many matters which I think the general community would take advantage of if such a benefit could be afforded.

1603. With regard to social cablegrams, do you consider that the reduction or the abolition of the minimum would create a good deal of new traffic?—Yes, and I think the postal authorities are very much of the same opinion.

1604. Now, turning to business telegrams, do you think that this facility which you desire would lead to a considerable increase of genuine new business?—Yes.

1605. By new business I mean not a diversion of telegrams which are now sent at the full rates?—Yes, the cables would be used for matters which at present are not cabled.

1606. And you speak as having considered the question and discussed it with other members of the Chamber?—Yes, that seems to be the general feeling.

1607. **(Mr. Sinclair.)** Did I understand you this morning, when you were talking these matters over with us, to suggest that there should be no alteration in the number of words that could be sent in a week-end cable?—I suppose there would have to be an alteration, but it would be a low limit. What I intended to state was that it would be better that there should be a low limit and a high rate per word than that the high limit should be continued at the lower rate. At present I believe it is 15*s.* for 30 words and 6*d.* per word for every additional word, or rather, 2*s.* 6*d.* for every five words. Well, if the limit was reduced, I think one way of meeting it might be that the rate for each word should be put up from 6*d.* to 9*d.* But the best basis would, of course, be to have the limit reduced if it could be arranged.

1608. Do you think you would be bringing them into competition with deferred messages, both being used for business purposes?—I would not like to say; I understand deferred messages are those sent at night time.

1609. The deferred messages are those sent at a a reduced rate?—I do not think they would compete with each other; where it was necessary to go into details in order to save time and to expedite business, I think the week-end cable would be used for the purpose.

1610. **(Mr. Tatlow.)** Has your Chamber of Commerce ever passed any resolution on the subject?—They have never passed any formal resolution.

1611. Is it a matter that has been engaging public attention in the town in a definite direction?—I would not like to say that, except in so far as it is a matter that has been discussed privately.

1612. Is it not often the best way to move in a public manner in order to bring these things to a point?—I do not suppose the community, as a community, have thought it of sufficient importance to move specially in the matter, but the sentiment has been expressed.

1613. Has it been taken up as a newspaper matter?—I have never seen it, but it may have been.

1614. Your own personal opinion in regard to this reduction inclines more to maintaining the present rate per word and reducing the minimum as much as it can be reduced?—I should think that would be the most desirable way.

1615. That would be better than raising the rate per word?—Yes.

1616. **(Sir Jan Langerman.)** What is your opinion of ordinary code telegrams at 2*s.* 6*d.* a word; do you think that rate should be reduced?—I suppose it is one of those matters which the commercial community would heartily welcome if it could be done, but they think the present rate, so far as it goes, is reasonable.

1617. They are satisfied with that rate?—Yes; of course, I suppose we are all anxious to get as much as possible.

1618. I understand you to say you would be in favour of the higher rate for week-end cables—that is, fewer words and a higher rate?—No, I did not say that I would be in favour of a higher rate. That would be the alternative; if they said they could not reduce the minimum without some corresponding benefit, then I would suggest that the rates should be put up and the minimum be made lower. But if, on the other hand, it was possible to reduce the minimum and retain the rate of 6*d.*, that would be most desirable.

1619. At the present time you have to pay 15*s.*, whether you use 30 words or not?—That is so.

1620. You prefer rather to have a sliding scale?—It is most essential that the minimum should be reduced to a minimum of words.

1621. And the corresponding rate as well?—Yes, but, of course, if you could retain the rate, so much the better; at all events, the lower minimum and the higher rate per word would, I think, meet the case so far as the public is concerned.

1622. And you think there would be increased business?—Undoubtedly.

1623. And there would be less labour on the part of the Cable Companies for the same amount of money because you reduce the number of words?—Yes, it would be *pro rata* as far as that was concerned.

1624. So that altogether there would be less labour for the Cable Company and they would probably get a higher rate for the same amount of work. They would have increased business, and besides being beneficial to the community, you think it would also be in the interests of the Cable Company?—Yes, I think so; if you can argue that the present rates pay the Cable Companies, then they would get increased business, which would mean increased profit.

1625. **(Mr. Bowring.)** Do you think the Cable Companies could handle the extra business they would receive on account of the reduction?—I gather they could. I cannot definitely speak on behalf of Cable Companies.

1626. So far as you know, they are not working at a maximum?—That is so.

1627. **(Sir Rider Haggard.)** Do you think the public are sufficiently well informed as to these facilities which are already given for week-end telegrams?—I would not say the general public, but the commercial public are.

1628. You do not think the general public are familiar with these conditions or facilities?—I should say they are more or less ignorant of these conditions; they are not advertised in the ordinary sense; you can get information in the Postal Guide, but unless you

study it you are not brought into contact with these conditions.

1629. The proportion of people who read Postal Guides is very small?—Yes, and it is not so large in this country as in England.

1630. So it becomes a close business; it is only known to those people engaged in commercial affairs?—Presumably so.

1631. **(Mr. Campbell.)** If it were a fact that any further reduction granted in connection with cable messages was to be at the expense of the general taxpayer, would you be in favour of imposing that burden on the taxpayer for the sake of granting further reductions?—Speaking entirely personally, I should say: No, not if it is going to entail a loss to the Cable Companies or the Government.

1632. You may be aware that at the present time the South African Government guarantees to the Eastern Telegraph Company a certain revenue every year, and they are at present paying some thousands of pounds to make up the deficiency on this guaranteed amount?—I believe so.

1633. You would not be in favour of granting further reductions if those reductions tended to increase the payments by the Government?—I do not think so; I am speaking personally.

1634. **(Chairman.)** You said the commercial public are acquainted with the week-end cable facilities, but the ordinary outside public is not?—I would infer so, as far as I am able to judge.

1635. But surely from the point of view of the Cable Company it is most desirable to bring these facilities to the notice of the outside public, all of whose traffic would be new created. That would be more important than bringing it to the notice of the commercial public, who might simply divert their messages from the full-paid rate?—Yes.

1636. So that in reality under the present state of affairs the least desirable portion of the public, speaking from the cable point of view, is the only portion that knows of these advantages?—Yes. Of course, the commercial community have also the facilities of their own codes, which is a big point.

1637. The commercial public might conceivably divert their business from the higher rate to the lower one; whereas the ordinary public, who do not telegraph at all, cannot divert?—That is so.

1638. Therefore, everything which you get from the ordinary public is a gain?—Yes. My next point is in regard to the prompt delivery of cablegrams.

1639. You want them delivered by telegraph right throughout without any extra fee?—Yes, so that a a cable sent off on Saturday would be delivered on Monday instead of Tuesday.

1640. Do you consider that important?—Yes, I have heard that point discussed, and it is a complaint made against the system as it exists at present.

1641. Can you tell me when week-end telegrams arrive here now?—They reach here on Tuesday morning. The same advantages are given in England as apply here. If a special fee for local delivery is not paid it means two days' extra delay, or delivery on Thursday.

1642. Are there any other points?—No.

NATAL.

Durban, Monday, 23rd March 1914.

Mr. ALEXANDER BUCHANAN, Chairman, Mr. WALTER BUTCHER, Vice-Chairman, of the Durban Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Statistics, Weights, and Measures," see p.* 127, *and on "General Trade Questions," see p.* 162 *and App. I. and II., pp.* 175 *and* 176, *of* [*Cd.* 7707].)

1643. **(Chairman.)** I understand you are Chairman of the Durban Chamber of Commerce, Mr. Buchanan?—Yes.

1644. And you, Mr. Butcher, are Vice-Chairman?—Yes.

1645. Will you give evidence together. We had better take the points one by one. First of all in regard to ocean freights, you have given us a memorandum on that subject.

The memorandum was as follows:—

OCEAN FREIGHT RATES.

The Durban Chamber of Commerce wishes to direct attention to considerations why the rates of freight from Europe to Durban should be lower than they are, and perhaps as low as or lower than the rates to Capetown and Port Elizabeth.

The rates of freight to Capetown and Port Elizabeth quoted by the Conference Lines are ex-ship, while those to Durban include landing and placing in railway truck or wharf shed. Allowing 2*s.* 3*d.* per ton as the cost at Durban of landing and placing in truck or shed, the rates of freight from Europe to Durban are about 12 per cent. higher than those from Europe to Port Elizabeth.

The distances from Europe and North America to Durban are about 6 per cent. greater than those from Europe to Port Elizabeth. A boat which occupies 25 days in the passage from London to Port Elizabeth occupies 26½ days in that from London to Durban.

This difference in the rates to Durban and Port Elizabeth has been maintained practically unchanged since the year 1894. The Committee of the Chamber think that since 1894 the conditions at Durban Harbour have altered to such an extent in favour of visiting ships as to call for a readjustment of rates of freight in favour of this port.

In 1894 the average depth of the Durban bar at low water was 12 feet, and that depth could not be depended upon. Of the 401 steamers which came to Durban that year 92 remained at the outer anchorage and 28 either lightened there or waited for spring tides.

In 1913 the average depth of water where was formerly the bar was 34 feet 8 inches, and but for one day's delay in March, caused by exceptionally heavy seas, there was no interruption to the navigation of the port.

In 1894 the cost of coal bunkered at the outer anchorage was 25*s.* and 28*s.* per ton (in fact no trade in bunkering at the outer anchorage was done); the present cost on board at the wharf of best coal trimmed into bunkers is 17*s.* to 18*s.* 3*d.*

In 1894 the cost of water delivered at the outer anchorage was 52*s.* per thousand gallons, and at the inner harbour 17*s.*; now the cost is 7*s.* 6*d.* per thousand gallons, with discounts up to 15 per cent.

The Chamber think it significant that in the case of sugar carried by steamers of the Conference Lines from Mauritius to South African ports, in which case the port of Durban is reached before the port of Port Elizabeth, the rate of freight to Durban is 19*s.* 6*d.* including landing, that is 17*s.* 3*d.* ex-ship, while to Port Elizabeth it is 17*s.* ex-ship.

The cost of best coal trimmed into bunkers at Capetown is 25*s.* to 26*s.* At Port Elizabeth and East London there are but limited supplies at high cost.

Durban, 23 March 1914.] Mr. ALEX. BUCHANAN and Mr. WALTER BUTCHER. [*Communications: Post, Telegraph, and Steamship (including Freights).*

The following are recent examples of dispatch in discharging loading and coaling at this port:—

Discharging: the "Grantully Castle" discharged 2,750 tons in 40 hours; the "Briton," 1,018 tons in 9 hours.

Loading: the "Intombi" loaded 1,588 tons of general cargo in 16 hours; the "Windhuk," 1,060 tons in 11 hours.

Coaling: the "Susquehanna" shipped 5,700 tons of coal in 17¾ hours; the "Kratos," 910 tons in 3 hours.

All landing, shipping and coaling at Durban is done by private enterprise.

1646. **(Chairman.)** As regards the comparison between the rates to this port and to other ports in South Africa I do not think we are competent to deal with the question. That is a question of local rivalry which you must settle locally, but the Commission is much interested in the facts as to the development of Durban Harbour. I propose to ask you a few questions on that. You state that in 1913 the average depth of water at the bar was 34·8. Is that low tide?—Yes, spring tide.

1647. What is your rise and fall?—From 6 to 7 feet.

1648. That brings you to 40 feet at high tide?—Yes.

1649. Can that be increased still further if necessary?—Yes, by dredging.

1650. And that is the minimum depth in the entrance at any point?—Well, in the channel. **(Mr. Butcher.)** It is hardly at any point. It is more correct to say that is available depth right through the channel.

1651. You say in regard to the "Susquehanna" she shipped 5,700 tons of coal in 17¾ hours?—**(Mr. Buchanan).** That is cargo coal.

1652. Shipped in what way?—By the coaling appliances at the coaling wharf.

1653. I suppose the other witnesses from the Harbour are going to state what the plans are for increasing the capacity of the Harbour?—Yes, they will have the plans to-morrow.

1654. Can you tell us generally what your trade is with India, and what the probable development is?—It is principally an import trade in gunnies and rice.

1655. Is that increasing?—Yes. I should think so. **(Mr. Butcher.)** As regards gunnies it is increasing, but as regards rice it is decreasing, on account of the cessation of the introduction of indentured Indian immigrants.

1656. Do you mean the diminution in the Indian population?—The immigration of Indians to South Africa has come to an end; consequently the demand for rice, which forms their principal food, has also diminished.

1657. Is rice consumed mainly by the Indians and not by the other portion of the population?—The proportion of rice consumed by white people is very small.

1658. Ships that bring these goods from India go back with what freight?—Coal principally.

1659. For what ports?—Different ports, Bombay principally and also Karachi.

1660. What is the prevailing rate of freight on coal from this port to India?—I am not able to say. Mr. Williams, the coal expert, will give evidence on this subject this afternoon.

1661. **(Sir Jan Langerman.)** Comparing the cost of bunkering, I see you are considerably less than Cape Town?—**(Mr. Buchanan.)** Yes.

1662. In regard to ships going from Australia to London and London to Australia is it a shorter distance to call at Cape Town or Durban?—It is shorter to call at Cape Town.

1663. Would it not pay them to bunker at Cape Town rather than here in spite of the difference in the cost?—It is a question of whether the saving in the coal would be equal to the saving on the extra distance which they would have to go out of their way; that is a question for the shipowners to decide.

1664. You cannot say?—No.

1665. In regard to sugar, I see from the Chamber's Report a reference is made to the carrying of sugar from Mauritius to South African ports. What is the sugar production of the Union?—Last year it was 95,000 tons.

1666. What is the local consumption, do you know?—It is all consumed in the Union.

1667. Is there enough to supply the wants of the Union?—Mauritius sugar is imported at certain seasons of the year, especially by the Cape Colony.

1668. Does the Natal sugar industry supply the wants of the Union right through the year?—It does, more or less, but Cape Town has had to import sugar, and also Johannesburg.

1669. But if you produce here more than you consume why do you import from Mauritius?—We do not produce sufficient at present. This year we expected to produce 110,000 tons, but they only produced 90,000 tons. The production is increasing from year to year, but we are not able to supply the entire wants of the Union.

1670. Is that the reason why you import from Mauritius?—Yes. **(Mr. Butcher.)** We do not produce the whole consumption for the Union of South Africa and the trade that is done with Mauritius is in a certain class of sugar which we are not able to produce in sufficient quantities at present.

1671. **(Mr. Lorimer.)** What is the reason given by the Conference Lines for charging a lower rate on sugar to Port Elizabeth than for Durban. What reason do they give?—They give no reason at all.

1672. I have had special opportunities of knowing that Durban people have spent enormous sums in dredging the port?—Yes.

1673. Year by year they have had a very fine fleet of dredgers?—Yes.

1674. And they are required to keep the port open?—Yes.

1675. Does the bar silt up quickly?—Not now. The days of trouble with the bar are past.

1676. And you naturally claim that having done so much to make the port accessible you should be reasonably and fairly considered?—Yes.

1677. And what is the reason for refusing that?—No reason is given.

1678. **(Sir Alfred Bateman.)** The freight rates are rather more now than seven years ago when I was here?—Yes, some of them have increased.

1678A. Eighty per cent. of the import rates?—Yes.

1679. 80 per cent. have increased?—Yes. You see, under the new arrangement with the Union-Castle Company they had the power to increase a great number. We could give you the information in exact figures if you wish.*

1680. Yes, you might do so. As regards exports they are very much the same, are they not?—No, we are exporting more wool and wattle bark.

1681. But the mealie rate was decreased to 10*s.* seven years ago?—Yes.

* *The following statement was supplied subsequently:—*

Extract from Report of the Committee of the Durban Chamber of Commerce, dated 8th August 1913.

Rates of Freight from Europe to South Africa.

The following information regarding the new tariff of rates of freight by the Conference Lines from the United Kingdom and Continent to South African ports is taken from a statement prepared by the Secretary of the S.A. Merchants' Committee in London:—

Total number of rates	1,049
Open or Special rates	19
Rates increased to full limit of 15 per cent.	812
Of these, 259 are increased from 42*s.* 6*d.* to 47*s.* 6*d.*, and 282 from 30*s.* to 35*s.*	
Rates increased but not to full limit	102
Rates reduced	36
Of these, nine are reduced by 5*s.*, and 19 by 2*s.* 6*d.*	
Rates unchanged	80
Total	1,049

1682. And that continues, I understand?—Yes.

1683. Can you tell the Commission whether the through trade with Australia is increasing from Europe. Do vessels come here at all?—Yes, on the way home particularly.

1684. Do they come to bunker?—They come to discharge cargo and to bunker.

1685. Is that increasing?—Yes, I think it is.

1686. But in the outward direction there is not much trade?—No, they usually call at Cape Town.

Durban, Wednesday, 25th March 1914.

Mr. Alexander Harvey Rennie, Shipowner and Shipping Agent, called and examined.

(*For evidence of this witness on "Harbours, &c.," see p.* 135.)

1687. **(Sir Alfred Bateman.)** I understand that you wish to put forward certain views in regard to week-end cables? You were speaking to the Chairman about it?—Yes. He was asking me as to the question of supplementary mails by fast steamers, and I told him that we look upon the mail now as merely confirmatory of the cables. The week-end cables take the place of the post and are of the greatest possible benefit to the public, and are made a great deal of use of.

1688. Are they used for business purposes?—Not only for business purposes, but for private purposes very largely.

1689. Are they taking the place of correspondence?—Yes, to a great extent.

1690. For private purposes?—Yes, as well as for business purposes.

1691. Code messages are not allowed?—No, and the minimum is 15*s.* for 30 words.

1692 I suppose you have no figures as to the amount of business?—No: but the Cable Companies could give you figures.

1693. Anyhow, in the six months there has been a large business built up?—Yes, a very great business.

1694. Do you think that has taken the place of the ordinary code message?—To a very great extent.

1695. Then has the Cable Company gained by it?—I think they have gained by the very great increase in the number of messages. You see, they first introduced the deferred cablegram, then the week-end cablegram, and it has really been astonishing the use that has been made of these fresh means of communication. People cable to their wives and families and friends about all sort of things which they would never have dreamed of cabling about before.

1696. How much is the deferred rate?—Half the ordinary rate of 2*s.* 6*d.* I think they could make the minimum of the other, say, 10 words for 5*s.* Then it would be made still greater use of. In the old days the mail conveyed all the news, but nowadays we do not pay much attention to the mail, because it is simply a confirmation of messages that have already passed by cable, especially in regard to merchants here; they order very largely by cable now.

1697. Do you think the cabling here is very considerable compared with the population?—Extraordinary. I think if you had statistics in regard to the messages sent you would be surprised.

1698. **(Mr. Sinclair.)** Then the week-end cable is now becoming an important part of every business man's operations?—Yes, a very important part.

1699. Largely taking the place of letters that were formerly sent?—Yes, we bottle up all our news, so to speak, till the week-end, and then send a long cable.

1700. Then compared to the deferred system, has the week-end cable resulted in messages being sent that were not sent before?—Undoubtedly.

1701. That is new cabling entirely?—Yes.

1702. Suppose the reduction were made that you advocate, would it provide new business, or would it be simply the cabling that goes on now at a reduced rate?—I think it would provide still further business.

1703. **(Sir Alfred Bateman.)** You do not propose a reduced rate, but you want to reduce the minimum of words?—Yes; it is 15*s.* now, whether you send 6 words or 30. I really divide the cabling now into three classes: very important, where we cable immediately; important, where we use the night cable; and ordinary, where we use the week-end.

1704. Taking the place of what previously went by letter?—Yes.

1705. **(Mr. Tatlow.)** Has the community of Durban made any attempt yet to obtain that reduction?—There has been no application to the Cable Companies that I know of.

1706. Is it a question that has engaged public attention at all?—It is gradually growing. The public are only now really becoming alive to the facilities that exist in the week-end cables.

1707. Is it a matter that has been discussed by the community and a desire expressed for it?—Yes.

1708. Is it a felt want?—Yes. Being a shipping agent, I find it so much with passengers who cable to their friends. We often get 15 or 20 messages handed in. They are just beginning to know of it.

Pietermaritzburg, Friday, 27th March 1914.

Mr. David Forbes Forsyth, B.A., Chairman, and Mr. Robert Dunlop, Secretary, of the Pietermaritzburg Chamber of Commerce, called and examined.

(*For the evidence of these witnesses on "Mining," and on "General Trade Questions" see pp.* 26 *and* 171 *of* [*Cd.* 7707].)

1709. **(Sir Alfred Bateman.)** There were two subjects which we had a great deal of evidence on in Australia, one was in regard to deferred cablegrams. Has any use been made of the change in regard to week-end cablegrams?—**(Mr. Dunlop.)** Business people use it rather extensively, but we are not a large public, and I do not think the facilities have received sufficient publicity. That has prevented them being used as much as they might have been, and then, besides that, some people do not like having to pay for the service instructions.

1710. Is not the minimum 15*s.* for 30 words?—Yes.

1711. Do you want that minimum reduced?—It is very desirable that we should have it reduced. If it was reduced the general public might use the cable a great deal more than they do. The use of it to-day is practically confined to business people. 30 words is rather a large number. Some people would only use eight words but they have still to pay 15*s.*

1712. Coding is not allowed?—No.

1713. It can only be written in plain language, and you would like it reduced to say 5*s.* for 10 words?—Yes.

1714. Are those facilities well known?—Among business men, yes.

1715. To that extent has it taken the place of code cabling, or is it new business?—I think it is new business.

1716. Another point was about the steamship communication; are you satisfied with that?—We are not satisfied with the rates.

1717. I was here seven years ago, and the rates are a little higher now than then?—Yes; and they are going up, I think. That is the tendency.

1718. But you are satisfied with the service? Yes.

1719. **(Mr. Campbell.)** In regard to week-end cables; of course, you understand that at present the Union Government is paying a subsidy towards the Eastern Extension Telegraph Company's service, and at the same time it is paying a very fair postal subsidy?—Yes.

1720. Now, as an alternative between a slower postal service and a very much improved and efficient cable service, which would be the better for the commercial community of South Africa?—I should say the more rapid postal service.

1721. You think that would suit commercial needs better than a more efficient cable service?—Yes, because a cheaper and improved cable service would affect a smaller class. The large and important firms, and the Rand Mining houses, and people of that kind would use the cables more, wanting to have information and communication direct with the centre of the universe in London, but the smaller commercial houses would value more a more expeditious postal service.

1722. Do you not think that those who were in a hurry to transact business would value a very much cheaper cable service, and use the cable?—Yes, but those people are small in proportion to the great number from whom you are going to withdraw the privilege of a swift and efficient postal service.

1723. That appears to be the point as to whether, to the very large number of people who use the postal service to-day, speed is a very great necessity. To the general community, is a matter of a day or two in the delivery of its ordinary letters a matter of great moment?—I think the commercial community in South Africa would be rather afraid if they knew that their present postal time was to be increased. We greatly regret that under the new arrangement made, we in this town do not have the advantages that we had formerly in regard to postal matters.

1724. **(Mr. Garnett.)** Do you say that you are worse off now in regard to your postal service than you were?—Our post has now to leave on Wednesday night, and we receive our mail on the Thursday, so there is a whole week which we cannot make any use of. Prior to present arrangement, our post arrived on Friday and went out on Sunday night, and therefore we had one day to reply to any matters. Of course, I suppose it is unavoidable. One part of the Union suffers and another gains by the new postal arrangements.

1725. **(Sir Rider Haggard.)** Is there any means of avoiding that?—**(Mr. Forsyth.)** It was done to give the people in London more time to reply, but it gives us six days.

1726. It is a big waste of time?—Yes. It was arranged in London. Formerly the mail arrived in England on Saturday morning and left on Saturday afternoon; that prevented Continental and provincial replies being received till the following week.

1727. **(Sir Alfred Bateman.)** There is a gain at the other end, then, under the new arrangement. How about the time it takes to send and get a reply? Do you get an answer to a letter from here sooner now or later?—If the man wrote his reply as soon as he received the letter, we would get it six days sooner. The new arrangement gives the man in London a longer time to reply to a letter from South Africa, and also gives us a longer time to reply to a letter from him. Rather too long. But I do not see how it is to be avoided.

TRANSVAAL.

Johannesburg, Friday, 3rd April 1914.

Mr. Howard Wallace Soutter, Mr. Alfred Falkland Robinson, and Mr. Ernest Chappell, J.P., representing the Johannesburg Chamber of Commerce, called and examined.

(*For the evidence of these witnesses on "Migration, Land Settlement and Irrigation," see p.* 46; *on "Bills of Lading," p.* 91; *on "Railways, Harbours and Coal for bunkering and shipment," p.* 140; *on "Empire Development," p.* 161 *of this volume; and on "Exhibitions," see p.* 124, *on "Statistics," p.* 130, *on "General Trade Questions," p.* 173, *and "Legislation," p.* 183 *of* [*Cd.* 7707].)

The following extract from a letter from the Johannesburg Chamber of Commerce to the Commission was read by Mr. Soutter:—

Communications.

(*a*) *Mail Service.*—It is observed that a proposal has been submitted for a Joint Mail Service to the Cape and Australia—particularly with the view of bringing about more promptitude and regularity in the service to the latter country.

So far, however, as South Africa is concerned the contract with the Union-Castle S.S. Co. has more than eight years to run: and the existing service is regarded as satisfactory.

(*b*) *Ocean Freights.*—While the existing agreements between the steamship lines make for uniformity of conditions and also an arrangement of regular sailings (which is of advantage to importers) yet it is felt that the existing rates for the conveyance of merchandise to South Africa are very excessive.

(*c*) *Telegraphs.*—The Chamber would heartily welcome any proposals which would have the effect of cheapening cable rates to Great Britain; and undoubtedly every development in that direction is of material advantage to British trade.

Mr. Chappell read the following further memorandum on the questions:—

Memorandum re Mail Service and Ocean Freight.

In South Africa these two subjects are very closely associated with each other, on account of the agreement in existence between the so-called conference lines and most of the shippers to South Africa.

It will be within the knowledge of the Commission that the legal position of this agreement is at present the subject of arbitration in London. Hitherto the South African freight market has been governed by a system of deferred rebates, against which many objections were often urged. The present system is the result of:—

(*a*) The agitation against the principle of deferred rebates and in favour of an open freight market.

(*b*) The change of ownership that has recently taken place in the mail steamer lines.

It may be described as a compromise between the two systems. It gives the shipper a much freer hand than he has had for the past twenty years, whilst at the same time it maintains the convenience of regular sailings and the stability of freight—the latter an extremely important point to all holders of large stocks both here and at the coast, on account of the fluctuation in prices that would inevitably result, if freights were liable to considerable changes without any notice.

The Chamber considers that the rates of freight are high when the facilities for cheap coal and return freights are taken into consideration, and is of opinion that they might therefore be substantially reduced.

As already pointed out, the mail contract has still some eight years to run, and under the circumstances briefly sketched above, the advantages of discussing a joint mail service with Australia are not particularly apparent.

MEMORANDUM RE TELEGRAMS.

The system of week-end cables is considered by the Chamber to be a very real improvement, as every facility given in this direction is really a stimulus to trade. The further alterations that have come into force as from the first of this month partly comply with the requests that the Chamber has already made in this connection. They still leave two points to be considered, viz., the desirability of reducing the minimum charge of 12*s.* 6*d.* to, say, one-half that amount, which would be a great advantage to the poor man, enabling him to send a cable of ten words for that price; and there is a further improvement that would be much appreciated, viz., permission to use code words as well as plain language. At the present time it is impossible to send figures by means of these messages, as the words have to be used, and it would be an advantage if the same rule could be applied to these week-end cablegrams that obtains in the case of ordinary inland telegrams, viz., that figures up to the number of five can be sent as one word. The Chamber would urge the consideration of these three points, as their application cannot fail to facilitate commercial intercourse.

1728. **(Mr. Sinclair.)** In the first paper, under the heading "Ocean Freights," you suggest that the rates for the conveyance of merchandise are at present excessive. I should like to ask whether your Chamber has made representations to the shipping companies concerned to that effect?—**(Mr. Chappell.)** Representations have been made from time to time. I do not think they have been made particularly lately, owing to the recent date of the agreement, but they will probably be made in due course, because the public in South Africa generally think that the facility of return freights, which used not to exist in South Africa, and also the facility for cheap coal, which is also a new alteration, should be reflected in the freights to South Africa.

1729. We may take it that your Chamber will probably, in the near future, think it well to make specific representations to the shipping companies—to make, in short, the same representations that you are now putting before us?—Yes.

Johannesburg, Saturday, 4th April 1914.

Mr. NORMAN ANSTEY, Mayor of Johannesburg, called and examined.

1730. **(Chairman.)** You are Mayor of Johannesburg?—Yes.

1731. And the head of a large drapery establishment?—Yes.

1732. On the subject of week-end cablegrams, it has been said by some people that such messages are merely a diversion from the old full-rate cablegrams, and on the other hand it is held by some people that it represents actual new traffic which is to the benefit of the cable companies. Have you any experience?—Yes. We have always kept a separate account of cabling expenditure, and during 1912 our expenditure in cabling was a matter of 70*l.* Under that heading in the year 1913, when we began to make use of the week-end cables, the expenditure was largely increased and, as a matter of fact, practically doubled, being for that year 136*l.* as against 70*l.* for the previous year. And that ratio is continuing to increase, so that I find that for the first three months of 1914 it is actually at the rate of about 240*l.* a year. This I think goes to show that the great utility of the week-end cable is being made use of, and I have a table* here to show the Commission, if they are sufficiently interested.

1733. Yes, we should like to see it?—This is our usual cable book, and there is a cable here, for instance, which it would have been impossible to send by code in the ordinary way. (*The book was inspected by the Commission.*) A great deal of the work that used to be done by letter in the ordinary way is now done by week-end cable, greatly to the advantage of competitive business. We are in this way, through the medium of the week-end cables, enabled to wait a little longer before indenting, to see which way the demands of the public are tending. Sometimes one class of goods will be in demand and sometimes another. We are now able to wait another three weeks in order to see which way the demand is going before placing our orders, and that, of course, is of immense assistance in a business like ours, which is so dependent on fashion.

1734. That is of very great importance to you?—Yes, and of much assistance in competitive business.

1735. It comes to this, then, that by means of these week-end facilities you now send by cable what would otherwise go by letter?—It would have to. It would be practically impossible to code it. You will see the code messages in that book. They are now being used to the full extent as they were before, with the addition that we also use the week-end cable. We depend now more upon cables than upon the mail.

1736. Do you know at all whether in other kinds of business the same rule prevails?—Well, it is difficult for me to say. In connection with the trade of supplying mining materials, where lines of goods are in bigger quantities, they have always had to use the cable. Probably the same thing would not apply to them, or if it did, not to the same extent as in the case of a retail business.

1737. These facilities being novel, full advantage is just beginning to be made of them?—That is my experience. Although I am told the week-end cable came into force in November 1912, I find that it is during the last six months that we have taken full advantage of it.

1738. **(Sir Alfred Bateman.)** Your business is very much dependent on fashion?—Yes.

1739. You want to be up-to-date?—That is so.

1740. And judging from what I saw yesterday, you are as much up-to-date as you can be?—Yes. I think the ladies of Johannesburg are, generally speaking, very well dressed.

1741. Are you in communication with Paris?—Yes.

1742. By cable direct?—No; through London.

1743. I do not want you to say anything about your business, but I should like to know how you get your stock out. Whom do you cable to?—We cable to

* Not printed.

a firm of London agents, who attend to the whole of our buying business on the other side.

1744. Then do they cable to you a good deal? Are they in a position to know the changes of Paris fashions, for instance?—Yes; they have their people there.

1745. Because in regard to a certain business that I happen to be familiar with—a Luton business—they constantly send over people to the races at Paris—the heads of the firm and the lady managers—to see what is coming into fashion there?—Yes. Our London staff do the same thing. They go there regularly to gather ideas—not so much to buy.

1746. And perhaps you modify them?—Yes, more frequently.

1747. Do they make use of the cables in the opposite direction very much?—Not to the same extent. The usual method is to write and send samples, and we cable either by code or week-end cable for our requirements.

1748. Are there many similar houses to yours in Johannesburg?—Yes, there is quite a number, I think.

1749. I suppose all the other houses would do very much the same?—Yes, I suppose so. They would have to, or else get behind the times.

1750. Do you know anything about social cables or family cables?—No. I have no special knowledge of those. I know they are being used, but I do not think they are as yet sufficiently well known or appreciated to be adopted as fully as they would be.

1751. In the case of families where one member is here and another at Home, for instance?—They only cable on very special occasions, I think.

1752. They have not got into the habit of using the service instead of writing letters?—No. They do not cable to wish each other "many happy returns," for instance—usually speaking.

1753. Are you trying to get a reduction in the present rate or the minimum number of words?—I understand something is being done, but it has not yet come into force. There is some hitch in the negotiations, I have been told this morning.

1754. You find this arrangement very advantageous?—Yes, and I think if the rate was still further reduced we should use it even more fully.

1755. **(Mr. Sinclair.)** As further reductions come about, the cable will more largely take the place of the letter, you think?—Oh, no doubt.

1756. **(Mr. Tatlow.)** What reduction do you think should be made? Is not the charge at present a minimum of 15*s.* for 30 words?—That is the present charge.

1757. What is your view as to the reduction that should be made?—It is very difficult for me, as a merchant, to say how low the charge should be made, but it does appear to me that, were no additional expenses involved, if the charge could be reduced still further it would add appreciably to the cable companies' revenue and all additional business would represent additional profit. Therefore, if the cable companies could continue to reduce the charges until such time as the cable would be made general use of by the public I think it would be sound policy.

1758. Do you think the reduction in the minimum number of words would lead to a large increase in business, judging from your own requirements?—From my point of view, no.

1759. As far as you are concerned, the minimum is about right?—It does not matter very much. You will see from that book that we exceed the minimum on every occasion. But for social messages no doubt the minimum number of words could be reduced to advantage. For business purposes I do not think it makes any difference.

1760. You say it is not sufficiently well known. Is it not advertised in the post offices all over the country?—Yes, but information of that kind takes a long time to percolate through to the public.

1761. Apart from the Postal Guide, are not there prominent notices in the post offices throughout the country?—There may be, but my impression is that the general public is not very largely aware of these facilities.

1762. Do you not think they should be advertised in large characters in all the post offices?—But even then it takes time, and the question is whether such an expenditure on advertising would be fully justified.

1763. Your own expenditure in cabling has very largely increased—more than trebled—recently, judging by the figures you have given us, but if it had not been for this week-end rate would your cable expenses have increased so much?—No; I think they would not have increased at all.

1764. So it is greatly due to the cheaper facilities?—Yes.

1765. You would not have cabled those messages otherwise, at the ordinary rates, I suppose?—No, and in many cases it would have been quite impracticable to code them.

(*For further evidence on this subject*, see *Williams, p.* 126, *Q.* 2805, *&c., Siedle, pp.* 130–1, *of this volume, and Egan, pp.* 147–9. *Anderson and Reynolds-Tait, pp.* 165–9 *of* [*Cd.* 7707].)

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APPENDIX I.

STATEMENTS FURNISHED BY MR. WILSON, POSTMASTER-GENERAL. *See* Q. 1123, p. 56.

Actual Cost of Mail Service between the United Kingdom and South Africa per Ton Avoirdupois on the Basis of the Present Subsidy as Compared with the Cost at Rome Sea Transit Rates and South African Statutory Private Ship Rates.

(*a*) ON BASIS SUBSIDY.

	Tons per Annum.	
*Letters and postcards:—		
From United Kingdom	162	
„ South Africa	130	
		292
*Other articles:—		
From United Kingdom	975	
„ South Africa	286	
		1,261
†Parcels:—		
From United Kingdom	612	
„ South Africa	64	
		676
Total		2,229

Subsidy per annum, 150,000*l.*
Average cost = 67*l.* per ton.

(*b*) ROME SEA TRANSIT RATES.

	£	*s.*	*d.*
Letters and postcards:—			
= 8 francs per kilo.			
= 2*s.* 10*d.* per lb.			
= 322*l.* 10*s.* 4*d.* per ton.			
292 tons =	94,174	17	4
Other articles:—			
= 1 franc per kilo.			
= 4½*d.* per lb.			
= 45*l.* 6*s.* 4*d.* per ton.			
1,261 tons =	50,839	6	4
Parcels:—			
= 1½ francs per parcel.			
= 1*s.* 2¼*d.* per parcel.			
328,210 parcels (676 tons) =	19,487	9	4
Cost of letters, postcards, other articles and parcels =	164,501	13	0

Average cost = 73*l.* 11*s.* 6*d.* per ton.

‡(*c*) AT SOUTH AFRICAN PRIVATE SHIP (STATUTORY RATES).

	£	*s.*	*d.*
Letters and postcards:—			
= 1*s.* per lb.			
= 112*l.* per ton.			
292 tons =	32,704	0	0
Other articles:—			
= 2*d.* per lb.			
= 18*l.* 13*s.* 4*d.* per ton.			
1,261 tons =	23,538	13	4
Parcels:—			
= 3*d.* per lb.			
= 28*l.* per ton.			
676 tons =	18,928	0	0
Cost of letters, postcards, other articles and parcels =	75,170	13	4

Average cost = 33*l.* 14*s.* 5*d.* per ton.

The South African private or non-contract ships (statutory) rates are—

Letters and postcards.—1*s.* for the first lb. and 6*d.* for each additional 8 ozs. thereafter.

Books and sample packets and newspapers.—2*d.* for the first lb. and 1*d.* for each additional 8 ozs. thereafter.

Parcels.—3*d.* for the first lb. and 1½*d.* for each additional 8 ozs. thereafter.

These rates are governed by section 40 of the Post Office Administration and Shipping Combinations Discouragement Act, No. 10 of 1911, which reads as follows:—

> 40.—(1) The master of any vessel (other than a vessel under contract for the conveyance of such mail) about to depart from any port within the Union who receives on board any mail for the purpose of conveying the same according to the direction thereof shall be entitled to demand and receive for the conveyance thereof payment at such rates as may be prescribed, and shall give a receipt for the amount so received by him: Provided that no master of a vessel shall be entitled to demand payment in respect of the second conveyance of any mail brought from one port to another and transhipped to or forwarded by a second vessel belonging to the same owner.
>
> (2) Payment for the conveyance of mails under this section shall only be made in respect of mails despatched from any port within the Union, and in no case in respect of mails received at any such port within the Union.

The above rates appear in "Schedule E" of the Regulations issued under the Act quoted.

* Based on Postal Union Statistics, 1913.

† Estimated on basis of 1912 figures.

‡ It should be remarked in connection with the above figures that the cost of conveyance has been calculated at South African Private Ship Rates on the traffic from South Africa as well as on the traffic to South Africa from the United Kingdom, although in the latter case the rates which would apply in practice would be the *United Kingdom Statutory Rates* which, however, are only partly known here.

APPENDIX II.

STATEMENT FURNISHED BY MR. J. WILSON, POSTMASTER-GENERAL. *See* Q. 1170, p. 58.

Total Deferred and Week-end Letter Telegrams with South Africa (excluding Beira Railway Stations and Portuguese District of the Zambesi).

	Deferred (All Places).						Week-end Letter Telegrams (Great Britain).					
	Messages.			Words.			Messages.			Words.		
	From	To	Total.	From	To	Total.	From	To	Total.	From	To	Total.
1912.												
January	1,107	690	1,797	12,825	7,603	20,428	—	—	—	—	—	—
February	1,639	858	2,497	19,777	9,916	29,693	—	—	—	—	—	—
March	1,902	1,087	2,989	23,477	11,426	34,903	—	—	—	—	—	—

Appendix III. [*Communications: Post, Telegraph, and Steamship (including Freights).*

Statement furnished by Mr. J. Wilson, Postmaster-General—*continued.*

—	Deferred (All Places).						Week-end Letter Telegrams (Great Britain).					
	Messages.			Words.			Messages.			Words.		
	From	To	Total.	From	To	Total.	From	To	Total.	From	To	Total.
1912—*cont.*												
April - -	2,076	1,203	3,279	25,846	14,295	40,141	—	—	—	—	—	—
May - - -	2,429	1,407	3,836	29,815	17,722	47,537	—	—	—	—	—	—
June - - -	2,502	1,663	4,165	32,289	19,178	51,467	—	—	—	—	—	—
July - - -	2,698	1,704	4,402	37,207	19,376	56,583	—	—	—	—	—	—
August - -	2,961	1,793	4,754	37,510	20,076	57,586	—	—	—	—	—	—
September - -	3,117	2,013	5,130	40,089	24,356	64,445	—	—	—	—	—	—
October - -	3,473	2,330	5,803	47,859	29,477	77,336	—	—	—	—	—	—
November - -	3,376	2,235	5,611	43,633	27,890	71,523	562	92	654	22,941	3,171	26,112
December - -	3,242	2,367	5,609	41,944	29,264	71,208	669	169	838	23,254	5,965	29,219
1913.												
January - -	3,073	2,315	5,388	40,698	28,216	68,914	778	333	1,111	27,651	11,161	38,812
February - -	3,104	2,435	5,539	40,558	31,774	72,332	925	363	1,288	32,528	11,337	43,865
March - -	3,322	2,513	5,835	42,260	31,221	73,481	1,172	442	1,614	41,029	15,404	56,433
April - -	3,554	2,615	6,169	46,832	32,452	79,284	1,171	463	1,634	44,321	16,148	60,469
May - - -	3,462	2,854	6,316	45,339	35,818	81,157	1,488	564	2,052	59,107	17,100	76,207
June - - -	3,288	2,683	5,971	43,284	33,752	77,036	1,296	455	1,751	45,592	19,550	65,142
July - - -	3,786	2,948	6,734	48,460	36,209	84,669	1,264	481	1,745	44,181	16,530	60,711
August - -	3,327	2,621	5,948	41,171	32,821	73,992	1,801	586	2,387	64,355	20,460	84,815
September - -	3,377	2,840	6,217	44,642	35,224	79,866	1,492	519	2,011	57,991	18,586	76,577
October - -	3,619	3,033	6,652	45,229	36,468	81,697	1,621	564	2,185	59,782	20,355	80,137
November - -	3,444	3,303	6,747	45,338	34,473	79,811	1,916	777	2,693	70,458	28,129	98,587
December - -	3,555	3,168*	6,723	47,783	35,470*	83,253	1,371	548	1,919	49,730	18,897	68,627

* Estimated.

Deferred Telegrams with South Africa came into operation January 1st, 1912.
Week-end Letter Telegrams with South Africa came into operation November 9th, 1912.

APPENDIX III.

Statement furnished by Mr. W. W. Hoy, General Manager of Railways and Harbours in the Union of South Africa, showing the Tonnage of Steamers calling at Durban and Table Bay Harbours en route to or from Australia, also the Amount of Dues paid and the Tonnage of Coal bunkered at these Ports during the Years 1912 and 1913.

(*For Mr. Hoy's evidence* see *p.* 75.)

To Australia.

Particulars.	Steamers calling at Durban.				Steamers calling at Cape Town.			
	1912.	1913.	Increase over 1912.		1912.	1913.	Increase or Decrease over 1912.	
				Per cent.				Per cent.
Number of steamers -	86	139	53	62	251	236	— 18	— 7
Gross tonnage -	402,976	700,406	297,430	74	1,815,461	1,739,990	— 75,471	— 4
Net tonnage - -	255,314	443,820	188,506	74	1,159,815	1,100,633	— 59,182	— 5
Average per steamer:—								
Gross tonnage - -	4,686	5,039	353	7½	7,233	7,468	235	3
Net tonnage - -	2,969	3,193	224	7½	4,621	4,724	103	2
Coal bunkered (tons) -	86,032	141,909	55,877	65	235,991	165,388	— 70,603	—30
Ships' charges - -	4,117*l.*	6,779*l.*	2,662*l.*	64½	6,984*l.*	6,247*l.*	— 737*l.*	—10½
Steamers to Australia per cent. of all steamers:—	Per cent.	Per cent.	Per cent.		Per cent.	Per cent.	Per cent.	
Numbers - - -	7½	11	3½	—	18	16	— 2	—
Gross tonnage - -	7	11	4	—	28	27	— 1	—
Net tonnage - -	7	11	4	—	28½	28	— ½	—

Appendix IV. [*Communications : Post, Telegraph, and Steamship (including Freights).*

From Australia.

Particulars.	Steamers calling at Durban.				Steamers calling at Cape Town.			
	1912.	1913.	Increase or Decrease over 1912.		1912.	1913.	Increase or Decrease over 1912.	
				Per cent.				Per cent.
Number of steamers -	188	231	43	23	68	82	14	20½
Gross tonnage - -	1,179,740	1,400,587	220,847	18½	513,807	604,129	90,322	17½
Net tonnage - -	755,643	900,888	145,245	19	328,508	384,613	56,105	17
Average per steamer :—								
Gross tonnage - -	6,275	6,063	— 212	— 3	7,556	7,367	— 189	— 2½
Net tonnage - -	4,019	3,900	— 119	— 3	4,831	4,690	— 141	— 3
Coal bunkered (tons) -	236,009	251,670	+ 15,661	6½	9,415	10,771	1,356	14
Ships' charges - -	11,858*l.*	13,744*l.*	1,886*l.*	16	3,035*l.*	4,318*l.*	1,283*l.*	42
Steamers from Australia per cent. of all steamers :—	Per cent.	Per cent.	Per cent.		Per cent.	Per cent.	Per cent.	
Numbers - - -	16	18	2	—	5	5½	½	—
Gross tonnage - -	20	22	2	—	8	9	1	—
Net tonnage - -	21	23	2	—	8	10	2	—

Total to and from Australia.

				Per cent.				Per cent.
Number of steamers -	274	370	96	35	319	315	— 4	— 1
Gross tonnage - -	1,582,716	2,100,993	518,277	33	2,329,268	2,344,119	14,851	½
Net tonnage - -	1,010,957	1,344,708	333,751	33	1,488,323	1,485,246	— 3,077	—
Average per steamer :—								
Gross tonnage - -	5,776	5,678	— 98	— 2	7,301	7,442	141	2
Net tonnage - -	3,690	3,634	— 56	— 1½	4,666	4,715	49	1
Coal bunkered (tons) -	322,041	393,579	71,538	22	245,406	176,159	— 69,247	—28
Ships' charges - -	15,975*l.*	20,522*l.*	4,547*l.*	28	10,020*l.*	10,565*l.*	545	53
Steamers to and from Australia per cent. of all steamers :—	Per cent.	Per cent.	Per cent.		Per cent.	Per cent.	Per cent.	
Numbers - - -	24	29½	5½	—	22	21	— 1	—
Gross tonnage - -	27	33	6	—	36	36	—	—
Net tonnage - -	28	34	6	—	37	38	1	—

General Manager's Office,
Cape Town, 26th March 1914.

APPENDIX IV.

Statement handed to the Commission at Port Elizabeth, on Friday, 13th March 1914, by Mr. R. P. Hannam, of the Firm of Hannam & Co., Port Elizabeth.

Deferred and Week-End Cablegrams.

The sender of a "deferred" message is required to make a declaration giving a formal assurance that the text is composed entirely of plain language, and that it bears no other meaning than that which appears on its face. In view of this fact it seems not unreasonable to suggest that the underlined portions of clause 114 of Cablegram Rules and Regulations, as given below, should be withdrawn. If this was done it would very considerably facilitate business communications.

Clause 114.—No *figures (these must be written in words), commercial marks*, groups of letters, signs of punctuation (unless conforming with the text), or *abbreviated expressions* may be included in the text of "deferred" telegrams; neither may the text be composed of isolated letters or of words not having a clearly connected meaning. Messages without a text are not admitted. *Exceptionally*, a registered code address may be included in the text, provided the sense of the message makes its meaning clear. *Figures are admitted in the address and signature.*

Clause 123, relating to week-end cablegrams only and not to deferred cablegrams, provides that messages may be telegraphed to cable stations at the ordinary telegraph rates. It would be of great benefit if such cables could be sent from any telegraph office in the Union without additional charge for telegraphing to the cable station. This would enable those situated away from cable stations to send their cablegrams on Saturday free of extra telegraph expense, instead of, as at present, having either to send them some days beforehand by post or incur the extra expense of telegraphing to cable stations.

Mr. Hannam was questioned by Sir Rider Haggard, Mr. Garnett, and Mr. Bowring with regard to this memorandum.

He made it clear that so far as Port Elizabeth was concerned the week-end telegrams were mainly used by the business community. It was suggested to him that it would be of much convenience if a week-end telegram of ten words, costing 5*s.*, could be introduced into South Africa. He agreed that this innovation would be very desirable, and was of opinion that it would be an advantage even slightly to increase the rate, say, to 9*d.* per word, provided that the minimum of words were reduced, say, to ten.

APPENDIX V.

Memorandum furnished to the Commission by Sir Maitland H. Park, Editor of the "Cape Times."

With the permission of the chairman and the members of the Dominions Royal Commission, I should like to put in a short statement in regard to one or two points of interest to the newspaper reading public in South Africa.

1. The reduction of the Press cable rate between Great Britain and South Africa from 1*s.* to 3½*d.* has been greatly appreciated, and has caused a marked expansion in the volume of Press messages. Practically the whole benefit of the reduction has been given to the public; that is, the money saved has been expended in an extension of the news service.

2. The recent experiment of a week-end cable for private purposes at reduced rates—15*s.* for 30 words—has been successful, though it would be still more successful if the conditions were made more elastic. If a week-end message of from 10 to 15 words could be sent for 5*s.* the value of the new departure to the general public would be greatly enhanced. But, as the editor of a South African newspaper, my object at this moment is rather to suggest an extension of the experiment for Press purposes.

A feature in the leading newspapers in South Africa is a weekly news-letter from London. The "Cape Times," in addition to a letter concerned with political and general news, has special letters dealing in greater detail with society and the drama, fashions, naval and military intelligence, and the wool trade. These letters, however, are necessarily about three weeks old at the date of publication. If the cable company could be induced to quote a special rate—say, 1*d.* a word up to 800 words—for a weekly cable, a comprehensive news-letter every week-end would become practicable for at least four or five of the most important dailies. This might also induce the English newspapers to set apart a column once a week for oversea news. At present I understand that more than 50 per cent. of the Press news cabled from South Africa to London from day to day is crowded out. Possibly a weekly review cabled at specially reduced rates might have a better fate.

3. A short time ago the British Postmaster General had a one-clause Bill passed through Parliament, the effect of which is to give overseas papers reposted in London the benefit of British postal rates; that is ½*d.* each, regardless of size, instead of ½*d.* per 2 ozs., as formerly. As Chairman of the South African Branch of the Empire Press Union I desire to put on record the acknowledgment of the South African Press for this concession, which will undoubtedly help to promote the diffusion of Imperial news.

But, as the London Executive of the Empire Press Union has consistently urged, the time has come for a much more important change in the same direction. Except in Canada, where a newspaper postal tariff of 1*d.* per lb. weight is in vogue between the Dominion and the Mother Country, the general rate throughout the Empire is ½*d.* for every 2 ozs. This means in practice that very few newspapers outside Canada can be transmitted at less than 2*d.* a copy, which is a heavy handicap on the free interchange of Imperial news. If we cannot have a universal Empire rate of 1*d.*, irrespectively of weight, the Canadian tariff of 1*d.* per lb. might be applied. Or if, on financial grounds, this proposal seems too formidable, a 1*d.* per half pound would at least be better than ½*d.* per 2 ozs. The British Post Office, as far as I can understand, objects solely on financial grounds; but it is not clear that the financial loss would be material if the concession were confined to newspapers. The British Postmaster General has argued that what is conceded to newspapers must be conceded to magazines; but, if the real obstacle is financial, and financial considerations do not come into play in the case of newspapers, or not to anything like the same extent as in the case of magazines, then I can see no good reason why impracticability in the one case should be held to block practicability in the other.

4. There is one other point to which it may be worth while to call attention. The newspapers in any one Dominion usually get their cable news regarding the events in the other Dominions through London. London is the Empire's journalistic clearing house as well as its financial clearing house. But direct communication between the Dominions is occasionally necessary, and ought certainly to be encouraged. So far as Press rates are concerned, it is at present heavily penalised. I had to cable a few weeks ago to Toronto and Melbourne for news which was of special interest to South Africa, but was not at all likely to be transmitted through London. I found that I had to pay 1*s.* 5*d.* a word for the Canadian message, and 1*s.* 1*d.* for the Australian message. Similarly, the rate to India and Ceylon direct for Press messages is 1*s.* 2*d.* The two messages together cost me over 30*l.* These rates, to my thinking, are utterly absurd at this stage in the development of Imperial cable communications.

Maitland H. Park.

(b) Bills of Lading.

CAPE OF GOOD HOPE.

Cape Town, Monday, 2nd March 1914.

Mr. Advocate Louis Edmund Benjamin, K.C., LL.B., called and examined.

(*For the evidence of this witness on "Legislation" see p.* 178 *of* [*Cd.* 7707].)

1766. **(Chairman.)** What are the laws in force in the Union in regard to bills of lading?—The law is the same as in England, that was taken over in 1879.

1767. Has there been any agitation here in favour of adopting Australian or American law regarding Bills of Lading?—No, none at all. As a matter of fact there is not much litigation in the courts here in connection with carriage by sea, the greater portion of it goes to England, and hence the advisability of adopting one or the other system has not been considered up to the present time. The reason why the English law was adopted was this: In 1879 there were two courts of concurrent jurisdiction here, the Supreme Court of Cape Colony and the Vice Admiralty Court. The Vice Admiralty Court applied English law and the Supreme Court Roman Dutch law, so that the redress which was obtained in any particular case depended upon the particular court in which the action was tried. The absurdity of the thing was recognised and consequently an Act was passed in 1879 by which it was provided that English law should prevail in all questions in which the Vice Admiralty Court had concurrent jurisdiction with the Supreme Court.

1768. **(Mr. Sinclair.)** In regard to bills of lading uniformity would seem to be desirable as far as it is possible to bring it about?—Yes. As a matter of fact

our law at present is substantially the same as the English law.

1768*a*. It was suggested to the Commission in one centre that if bills of lading were narrowed in the interests of the shipper of goods it might have the effect of diverting trade to lines that adopted a broader bill of lading. Do you think that there would be any likelihood of that?—I think there probably would be.

1769. In considering some general law in connection with bills of lading I presume the general effect of the law would be taken into consideration?—As far as South Africa is concerned there would be no difficulty in falling into line with the Mother Country on whatever policy they adopted in connection with bills of lading. Whatever policy would most encourage the trade of the Empire would also tend to encourage South African trade.

1770. Have you had any cases in your practice as a barrister from which you can give the Commission any assistance as to bills of lading broadly. Have you had any difficulty here. Does your bill of lading contract the steamship company out of liability for negligence?—All the bills of lading we have here are substantially drawn in English form. There is very little local sea trade here. The greater portion of the sea trade comes over the high seas.

1771. Have you local legislation that interferes in any way with the right of the steamship proprietor to contract himself out of liability for negligence?—No.

Cape Town, Wednesday, 4th March 1914.

Mr. K. SPILHAUS, of Messrs. William Spilhaus & Co., called and examined.

(*For the evidence of this witness on "Freights" and "Bunker coal"* see *pp.* 74 *and* 105.)

1772. **(Chairman.)** I think you have also some evidence on the subject of bills of lading. What have you to say?—I have nothing very much to say, but I was told that you wanted to ask some questions. The only thing I would like to say is that there should be a uniform grain bill of lading throughout the Empire, but I should not wish it brought about by legislation. On the contrary, I prefer it to come about by common agreement between the shipowners and the shippers.

1773. Do you have any difficulty here with the shipowners as to the terms of your bills?—There has been some query now and then. The clauses of bills of lading operate more on the receiver than on the shipper. We sell on the terms of the South African bills of lading, and if there is any complaint we are not so much concerned, it is the receiver in London who has more to say. We have heard, and our friends have written to us, that they have made representations to the conference lines to get some clauses altered on the bills of lading.

Kimberley, Wednesday, 18th March 1914.

Mr. ARNOLD WILSON WALL, Manager of Messrs. Stewarts and Lloyds (South Africa), Ltd., called and examined.

(*For the evidence of this witness on "Irrigation,"* see *p.* 28.)

1774. **(Chairman.)** You wish to give evidence on the subject of through bills of lading?—Yes, I am distinctly in favour of through bills of lading, for this reason, that it brings the man who buys and the British manufacturer closer together. At present, if a man in Kimberley, for instance, wants to buy a plant, or an engine, or a windmill, or anything of that kind, he more or less goes to the merchant either in Kimberley or in Port Elizabeth. The result is that he does not do his business direct with the manufacturer, and he gets his goods, as I call it, second-hand. I think if the people who use the machinery were able to import it direct, and if facilities were offered by the Government for doing it, not only would they get better material, but also much cheaper, because they would obviate paying, in most instances, the merchant's commission. Perhaps they buy it from a man in Kimberley who, in turn, has bought it from the merchant in Port Elizabeth, or one of the other coast towns. Further than that, on the grounds of expense, I see no reason why in this country, where the railways are owned by the State, and goods landed by the Government and carried over railways by the Government, the Government should not also go a step further and do the forwarding. At present, if a man in Kimberley imports from home, he has to instruct the agent at one of the coast ports, giving him details, and this agent naturally charges a fee, which I consider, at any rate, to be excessive. If we could get a through bill of lading the whole of that expense would be obviated. He would then get a price from Birmingham or Glasgow, or wherever it might be, delivered in Kimberley, and the goods would come right through, and he would be saved the expense and trouble of instructing the agents and also save the agents' fees, and be in closer touch with the manufacturer of the goods which he imports. The Government some months ago did move in this matter, but unfortunately the scheme was abandoned, and that is why I am raising this question to-day and bring the matter before this Commission, because I think, more especially from the buyer's point of view, it would be a distinct advantage if through bills of lading could be adopted. I have made several inquiries in England, and I find it is quite a common practice there for goods to be shipped from, say, Germany direct to Birmingham, perhaps *viâ* Cardiff, and the railway people there do all the necessary work, and, as far as I have been able to ascertain, it has worked quite satisfactorily, and I see no reason why in this country a similar condition of affairs should not exist. Of course, the opposition which has been put forward to my argument is this: the merchant says,—If you are going to do this you are going to have the private consumer going direct to the manufacturer, and we poor merchants are going to starve. But I do not think there is much in that argument, and the advantages that would accrue to the consumer are so great that I think they would far outweigh the little disadvantage in the case of the merchants. And I do not think their argument holds good either in this way, because in my experience of suction gas-engines or windmills, the farmer or consumer who buys the plant always wants you to erect it, as it would be quite impossible for the ordinary farmer to put up an engine. He has not the necessary technical knowledge himself

and as long as that knowledge is required I do not think the merchant or other people who do this work are going to suffer. But if you adopt the through bill, the man is going to get his stuff much cheaper than under present conditions, where he has to pay the merchant here or in Port Elizabeth, and also agents' fees, which I consider are too high at present for clearing the goods.

1775. As things are at present, I understand, the farmer in the Free State or the Transvaal who wants to buy a windmill or suction gas-engine can write to a firm in England and get it out?—Yes, but he would not do so, because he requires skilled assistance to put it up.

1776. Would the through bills of lading obviate that skilled assistance?—No. But my contention is that the farmer would be able to get the plant cheaper by getting it direct from Birmingham or Glasgow.

1777. What is his actual difficulty in doing that now? Is it that he cannot get the goods through the Customs without the local agent?—Yes, that is my point.

1778. And you would suggest the Government should clear those goods?—Yes.

1779. And forward direct to him?—Yes.

1780. (**Mr. Campbell.**) In this proposal to have a through bill of lading, if the business grew into large dimensions, it might tend to wipe out the machinery importer altogether I should think, would it not?—No, it could not wipe out the machinery importer, because he is the man who always erects the machinery. Seeing that a farmer cannot put up the engine by himself he must have someone to assist him.

1781. That would be a gain to the importer of the machinery?—Yes, but the through bill of lading is indirectly more gain to the farmer.

1782. Is the competition among the importers of machinery sufficient to ensure that the gain they get on the through bill would be passed on to the farmer?—Undoubtedly.

1783. There is keen competition among the importers of machinery here?—Yes.

1784. (**Mr. Lorimer.**) Do your own goods from Stewarts and Lloyds come through on your own bills of lading?—No. We have no through bills of lading in this country.

1785. Do you advocate their adoption universally?—Undoubtedly.

1786. Without any qualification?—Yes.

1787. Suppose a merchant in Cape Town were to receive goods for twenty different customers: how would he deal with a case like that?—If the merchant had twenty different customers and twenty consignments to send it would undoubtedly pay him to send them from his Cape Town stocks. The through bills of lading I refer to are more particularly for larger consignments.

1788. In that case, you would require to continue the present system in combination with the other, would you not?—Yes.

1789. That is what I meant when I asked you whether you proposed to adopt through bills of lading exclusively without any qualification. That would be quite impracticable?—Yes.

1790. Where would the railway come in in the adoption of the through bill of lading?—They would do the forwarding. At present they off-load the goods from the steamer and put them on the quay and you have to employ an agent to instruct them how they are to forward the goods. My point is that the Government, seeing that they off-load the goods from the ship and carry them from the port to the point of destination, might take the next step and arrange the forwarding.

1791. If they undertook that additional work they would naturally expect additional pay?—Yes.

1792. If there were additional payment equal to the agent's commission what advantage would accrue to the receiver?—None.

1793. Then on what ground is it that you advocate this change? The effect would be to eliminate the middleman, would it not?—It would have that tendency, but my contention is that the Government would not charge the fees that the agents are charging.

1794. You mean that the Government would do the work for less than the middleman now charges?—Yes.

1795. Do you suppose in that case that the saving would go to the ultimate buyer?—Undoubtedly.

1796. Would there be any further advantage accruing—any further advantage in security, any further certainty as to prompt delivery?—Yes, I think so. The man who was buying the machinery or consigning the goods would not have to put it through the merchants and he would get his goods direct from the seller.

1797. But what do you lose under your present system that you would gain under that system? Or what would you save by the adoption of the other system?—I would save considerably personally in agent's fees. I have to employ agents at the coast and I would save a considerable amount of money in the year—running into hundreds of pounds.

1798. You, as a large importer, would save certain fees?—Yes.

1799. But the general merchant, in order to provide for the other customers which he has all over the country, would require to continue to import the goods direct to the port of shipment and dispose of them afterwards himself?—Yes.

1800. So that, after all, the change you advocate is one mainly that would be to the benefit of the large importers?—No, I would not say that entirely. It is for the benefit of the large importers, certainly, but at the same time it is very much for the benefit of consumers.

1801. How so?—Because at the present time the consumer is not inclined to go to the trouble of getting prices at home, because he thinks the difficulties of importing are too great. He would rather employ a merchant to do it. The small consumer now gets his goods through the merchants in Cape Town or elsewhere.

1802. And under any circumstances he would still require to do that. I want to know what saving would be effected—what advantage would accrue to him in the event of such a change as you advocate being introduced?—The small consumer—it would not pay him, of course. Because it is quite obvious that if you want to buy something for 5*l.*, and by importing it direct from England you could save 5*s.*, you would say, "No, I will buy it from some local agent." But when it comes to paying 500*l.* or more, my contention is that the saving effected is so great that it would pay him to import direct.

1803. You yourself, resident here in Kimberley, would naturally save the usual agent's commission, which at present you have to spend in Cape Town or Port Elizabeth, and that is the basis of your plea just now, is it not?—Not the only basis.

1804. Have you anything else?—Yes. My contention is that the consumer, on account of these facilities, would buy in the home market, whereas now he buys from the merchant.

1805. Speaking from your point of view, you import articles which never get into the hands of the small consumer at all?—Yes.

1806. So that your point is that if you and all large importers like yourselves imported direct a certain saving would be effected by eliminating the middleman altogether?—Yes.

1807. And that in respect to the small consumer the present system would continue?—Yes.

1808. (**Mr. Sinclair.**) Is your suggestion on the subject of through bills of lading founded on the overcharge that you think is made?—That is one of the reasons.

1809. Do you suggest that that charge is so great that the Government ought to enter into competition?—Yes.

1810. Do you propose to submit any closer evidence of such overcharge?—I can tell you that the finest rate, for instance, that I am able to get in Port Elizabeth for clearing goods is 1*s.* per ton, and the Government at present will clear your goods in Durban for 3*d.* per ton.

1811. And that is the principal factor, is it, in inducing you to make this suggestion?—I would not say it is the principal factor, but it is certainly one.

1812. It looks as if it were the principal one, does it not?—I do not think so.

1813. As the Chairman has put it to you, there is nothing to prevent a man buying direct from the manufacturer, even at the present time, if he wishes to do so?—Yes.

1814. And those goods could be shipped by through bill of lading to Cape Town?—By ordinary bill of lading.

1815. And it is the difficulty that you suggest exists in regard to the charge at Cape Town that makes you put forward this suggestion?—That is one of the difficulties, but my principal objection is that the system at present in vogue is such that it prevents buyers going into the home market for their wants.

1816. **(Mr. Garnett.)** You said, I think, that your main desire was to eliminate the middleman?—No. Perhaps I do not understand what you mean by the term "middleman."

1817. Well, you say there are a number of people between the man on the soil who wants something and the manufacturer at home?—Yes.

1818. And you desire to put those two people *en rapport*, so to speak, with one another?—Yes.

1819. And that being done, the intervening people disappear?—Yes.

1820. Is that not eliminating the middlemen?—Yes.

1821. What class of goods have you principally in your mind?—Suction gas engines and windmills.

1822. What is the practice to-day? Supposing someone up-country wanted to put in a suction gas engine or windmill, what is his practice to-day?—He gets the Kimberley or Port Elizabeth merchant to order it for him.

1823. What services does he get for that; what services does the merchant perform?—He orders the goods from the home manufacturer, brings the machinery out, and erects it.

1824. Anything preliminary to that?—Yes, well, the preliminary work of dealing with the inquiry.

1825. Supposing a farmer requires a gas engine or something of that sort, has he sufficient technical knowledge to enable him to ascertain the horse power necessary and make out a specification and send it to the manufacturer?—No.

1826. Does the merchant in Kimberley do any of that work for him?—Yes, for which he charges.

1827. Well, I suggest to you that if a man is hundreds of miles away from the maker of the machine and has not sufficient knowledge to draw up a specification, a very considerable service is performed by the middleman who draws up such specification?—Yes. But I think if I were a farmer I would rather get the plant on a through bill of lading, and would employ the services of a qualified engineer if I could not draw up the specification myself.

1828. Would it be more advantageous to resort to the opinion of a consulting engineer or to the opinion of a firm which is continually dealing with these things?—That is a matter of opinion. Personally, I would go to the engineer.

1829. I submit to you that, in the elimination of the middleman, the buyer who is put into communication with the manufacturer at home, unless he selects some other technical adviser, may be losing some expert advice which at present is very valuable to him, and which is well worth the payment he may have to give?—Yes.

1830. You admit that services of that sort are performed by these importing merchants?—Yes.

1831. **(Sir Jan Langerman.)** I take it that your objection is to the landing and forwarding agent?—Yes.

1832. Is Natal exempted?—In Natal the Government does the work.

1833. All the work?—No, it is optional. If you want them to clear the goods they will do it.

1834. And you want that principle in the Cape Colony?—Yes.

1835. Are you aware that last year a Bill was passed whereby the Government has power to do it at other ports as well?—Yes.

1836. And since the Bill was passed, have you represented the matter to the Government?—Yes, and they reply that they are not prepared to undertake the work yet.

1837. Then it is purely a local matter? If you can show to the Government that it is desirable for them to do it they will, I suppose?—I have already represented the matter, and they say they are not prepared to do it.

1838. So there must be some reasons which prompted the Government not to introduce the Natal principle here?—I suppose so.

1839. The Government can do it at any time?—Yes.

1840. **(Mr. Bowring.)** The middleman to whom you have referred, and whom you say should be eliminated, is the forwarding agent at the coast?—Yes.

1841. Who now charges you 1*s.* a ton on all goods forwarded?—Yes.

1842. What services does he render for that shilling a ton?—He passes Customs entries and instructs the railway where to send the goods.

1843. Does he pay the freight?—No.

1844. Who pays that?—Usually it is paid by the man who receives the goods.

1845. In Kimberley, for instance?—Yes.

1846. Although you have no through bill of lading?—Yes.

1847. Does the shipping company collect the freight in Kimberley?—No, in many instances the shipping company collect it in England.

1848. It is prepaid freight?—Yes.

1849. Is that done in all cases?—No.

1850. What is done in other cases then?—That I cannot tell you. I do not think the forwarding agent pays the freight though.

1851. Because the ordinary forwarding agent, I presume, would clear your goods at the Customs, pay the duty, pay the freight, and forward the goods?—I do not think so.

1852. You cannot pay duty in Kimberley, can you?—No.

1853. But you can pay freight?—Do you mean by freight the carriage from the port to Kimberley?

1854. No, I mean the ocean freight.—Oh, no. On the question of freight I cannot tell you. In my own particular case the freight is paid on the other side.

1855. What I want to find out is what services does the forwarding agent at the coast render for the shilling a ton?—The services are, I think, what I have enumerated. I do not think he pays the freight.

1856. Even if it were not prepaid?—No.

1857. Then it must be paid in Kimberley, and he collects it?—That I cannot tell you.

1858. At any rate, you would not consider it excessive for a man to charge 1*s.* a ton if he had to pay the freight and the duty and forward the goods and undertake the collection of those charges here in Kimberley?—Yes, I think it would be excessive, when the Government, at the Port of Durban, will do it for 3*d.*

1859. I want to come to that. I want to see what the other coast towns will do it for, and then what the Government will do it for in Durban?—Yes, as regards the shilling a ton, that is quite an absolute minimum, in fact, most firms would pay 1*s.* 6*d.* or 1*s.* 9*d.*, and in some instances 2*s.*

1860. But that would include other services, I presume?—No, I do not think so.

1861. When you come to Durban, where the Government do it for you for 3*d.*, what do they do?—They act as shipping agent.

1862. Forward the goods to destination?—Yes.

1863. Clear them at Customs?—Yes.

1864. I presume they pay the duty?—No, you pay your duty at the destination, at Johannesburg. The bulk of the goods for Johannesburg come through Durban. What the Government will do is this: they say, "If you will pay us another 3*d.* a ton we will bring

the goods to Johannesburg for you, and there you may clear them."

1865. In Johannesburg, then, they have the privilege of paying the duty instead of at the coast town?—Yes.

1866. And you have not got that privilege in Kimberley?—No.

1867. The Government in Durban is doing more than the forwarding agent in the other coast towns?—Yes, in so far as they forward the goods and collect the duty at the town of destination.

1868. Then the forwarding agent at Cape Town, East London, or Port Elizabeth must pay the duty—that is one of the services?—Yes.

1869. He pays the freight, if it has not been prepaid, and forwards the goods?—I do not think he pays the freight.

1870. The Government, on the other hand, puts your goods through and collects all the charges at the town of destination?—Yes.

1871. So Johannesburg is more favourably treated than you are here in Kimberley?—Yes.

1872. **(Sir Rider Haggard.)** Suppose that the existing system of parcel post could be very much enlarged so that goods could be forwarded by it, and the duty on such goods collected at the place of arrival, would that meet with your views?—Yes.

1873. Have you ever considered that idea?—Yes.

1874. Have you ever urged it on the Government?—No, I have never gone so far as that.

1875. Would not that eliminate all the objections which you have alluded to?—Yes, in a measure.

1876. Would it not prove a great boon to commercial communities?—Yes, more especially for the small importer.

1877. One might even take it down to the agriculturist forwarding goods to markets?—Yes. I am glad you raised that point. I quite forgot that when I put this matter before you. Seeing that the Government will at present land your goods absolutely right at your door from oversea if you send them by parcel post and collect all the charges and the duty thereon, surely it is possible for them to go another step.

1878. **(Mr. Lorimer.)** I would like to ask what reason the Government gave for undertaking the clearing and forwarding of goods at Durban and refusing to do it elsewhere?—I am afraid I cannot tell you that.

1879. **(Chairman.)** The clearing agent at the port is able to check the condition of the goods on arrival and see if any damage has occurred on board ship?—Yes.

1880. Is not that a considerable advantage?—Yes.

1881. Would the Government do that at Durban? Do they also verify the sound condition of the goods on arrival?—I do not know.

TRANSVAAL.

Johannesburg, Friday, 3rd April 1914.

Mr. Howard Wallace Soutter, Mr. Alfred Falkland Robinson, and Mr. Ernest Chappell, J.P., representing the Johannesburg Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Migration, Land Settlement, and Irrigation,"* see *p.* 46, *on "Posts, Telegraphs, and Steamships," p.* 81, *on "Railways, Harbours, and Coal for bunkering and shipment," p.* 140, *on "Empire Development," p.* 161 *of this volume; and on "Exhibitions," see p.* 124, *on "Statistics," p.* 130, *"General Trade Questions," p.* 173, *and on "Legislation." p.* 183, *of* [*Cd.* 7707].)

The following extract from a letter from the Johannesburg Chamber of Commerce was read by Mr. Soutter:—

(A.)

Bills of Lading.—It is observed that suggestions have been put forward for the institution of through bills of lading from England direct to consignee. The Chamber sees no need for this, and, indeed, if a definite proposal were put forward, it would be strongly opposed as tending to interfere with the trade arrangements existing in this country.

1882. **(Mr. Sinclair.)** Your Chamber is not in favour of a suggestion that was made to us at one place, namely, the adoption of through bills of lading?—**(Mr. Chappell.)** No.

1883. You do not think there really would be a gain by the cutting out of the middleman, which, I take it, is one of the objects of the proposal?—At one time here in South Africa we had through bills of lading in certain lines. That was before the war. But they were not found to be a great convenience. As a matter of fact, they were relinquished automatically.

APPENDIX.

(B) Bills of Lading.

Letter from Mr. R. P. Hannam as to Clauses in Bills of Lading.

Port Elizabeth,
Cape of Good Hope,
13th March 1914.

Dear Sir,

In response to your request that I should write you my personal views regarding clauses at present existing in bills of lading, I would say, in dealing with this question, that many clauses at present current practically contract shipowners out of liabilities which under common law they might be responsible for.

I am of the opinion that legislation should be introduced as far as possible, and as far as is equitable to both shippers and shipowners, to prevent evasion of claims which appear to carry with them moral liability upon shipowners, but which are not recoverable by shippers, by reason of the fact that their legal force is disposed of by clauses in the bills of lading.

In view of the combination amongst shipowners, shippers would find it extremely difficult to get their goods carried at all unless they accepted bills of lading with these prohibitive clauses in them.

Presuming that the claims referred to arise in all cases from what might be more or less legitimately described as accidents, and are in no way caused by malicious damage, it is reasonable to suppose that in most or almost all cases such damage should be insurable. In practice, however, it is found that the insurance companies do at times refuse to pay some claims which they describe as not insurable risks.

In a case which occurred during the present month, one such claim was paid to our firm under protest by the local insurance company, whose agents anticipated that their company's head office in London would question the legitimacy of our claim against them. This particular case is, I think, a typical one, in which the consignee, and probably the underwriter, should not be called upon to bear the loss.

The damage was occasioned by the steamship company electing to discharge the cargo, which was sugar, from the hold of the ship, in slings which were wet. Presumably discharging took place during rain, which wetted the slings and damaged the cargo. The

lighter which received the cargo gave a qualified receipt for it owing to its being wet.

The bill of lading provides that the master of the ship is free to discharge cargo at all times and in all circumstances, and under this clause the shipowner repudiated liability.

It can be argued from the shipowner's point of view that it is essential for them to contract themselves out of liability due to negligence, and if this aspect represents a serious consideration to them, as it must do, then it seems to me that the onus of insurance against at least petty damages due to such negligence lies with the shipowner and not with the shipper or the consignee.

There appears to be sufficient margin on the present rates of freight to enable the shipowner to undertake the cost of such insurance without raising freight rates, but, if there is not, I personally would prefer to pay a small extra freight cost in exchange for the withdrawal of some of the restrictive clauses on the bills of lading now existing.

I can quite believe that there will be a large number of shippers and importers who would not favour any such extra charge, even though it carried with it the benefit of doing away with clauses in bills of lading which at present prevent them from establishing claims which would otherwise be recoverable from shipowners.

I do not think that any scheme under which shipowners adopted the whole responsibility of insurance in exchange for an absolutely clean bill of lading would be in any way acceptable because it would too greatly disturb present vested interests of underwriters; and shippers would not necessarily be satisfied with the security of cover that they themselves did not select.

I think that the individual shipper or consignee should be left free as at present to insure his own risk against any loss that is recoverable where any protest has been extended by any ship.

Legislation may be necessary to prevent the abuse of the extension of protests.

I realise that the question is hedged with difficulties, but if some method could be devised under which present petty losses, which are in no way ordinary perils of the sea and which fall upon the importer, and for which the shipowner is morally liable, could be legally established against the shipowner, it would constitute a great benefit to the importing community.

At present such losses as are referred to herein are borne entirely by the consignee, whereas if a universal extra cost was added to the freight (if necessary, which I do not think the case), then such loss would be distributed and would ultimately fall upon the consumer.

In conclusion I would say that it is extremely difficult for a consignee to establish a claim against the shipowner in any court of law, because the weight of evidence is so largely with the shipowner. Although the onus of proof to show that due diligence was performed rests with the shipowner, it is an almost impossible matter for the consignee to disprove any evidence that is given.

Your truly,
R. P. HANNAM.

E. J. Harding, Esq.,
Dominions Royal Commission,
Port Elizabeth.

(c) Railways, Harbours, and Coal for Bunkering and Shipment.

CAPE OF GOOD HOPE.

Cape Town, Thursday, February 26th, 1914.

Mr. G. T. NICHOLSON, Resident Engineer, Table Bay Harbour, South African Railways, called and examined.

1884. **(Chairman.)** You have given us certain figures which have been summarised together with those of the other ports* in South Africa. But I think you have a more detailed statement?—Yes.

1885. Would you like to summarise it verbally?—Yes.

1886. Will you please do so?—With regard, I suppose, to the improvements, principally?

1887. The present accommodation here and the improvements for increased accommodation which are in contemplation.—At present we can accommodate about 16 steamers. We have one berth available for a steamer drawing 34 ft. 6 ins. A number of berths we cannot, of course, deepen, in view of the fact that the old harbour was built upon sand. The South Arm and the Knuckle and the East Pier are all on sand, but a scheme has been put forward whereby we shall be able to get deeper water at two of the present jetties—we are reconstructing at the present moment—37 feet at number 2 and 38 feet at number 5. One is 640 feet long and the other 690, so you will get at these jetties four very good berths for deep draught vessels.

1888. Your length of berth at the East Pier is what—1,000 feet?—No, 786 feet. That is our deepest berth at present, and the Port Captain allows 18 inches for clearance. I may say we have the "Ceramic" booked for May, and she has intimated that she will draw 34 ft. 6 ins., and we will be capable of taking her in after a little dredging.

1889. Then with regard to further improvements; have other schemes been prepared and submitted to Parliament?—Yes, a scheme was prepared in August 1912, and submitted to the Government by myself and the Assistant Port Captain, and approved by the Government, and the estimate was 3,048,160*l*.

The full scheme is this:—

No. 2 jetty reconstruction already in hand, 90,529*l*

Deep-water berths provided in the new scheme, including the two berths at No. 2 jetty and the existing East Pier berth:—

No.	Position.	Length.	Depth below L.W.O.S.T.
4 berths	A and B (on litho) -	900 ft. each	40 ft.
1 berth	Inside Knuckle extension.	1,500 ft.	40 ft.
1 ..	Widening South Arm	900 ft.	Average 40 ft.
1 ..	Outside East Pier -	786 ft.	40 ft.
1 ..	No. 3 Quay Knuckle	830 ft.	36 to 43 ft.
2 berths	No. 3 Jetty - -	690 ft. each	38 ft.
2 ..	No. 2 Jetty - -	640 ft. ..	36 ft.
1 berth	East Pier (existing)	786 ft.	35 to 36 ft.

* *See* Appendix V., p. 157.

Estimate for plan, 3,048,160*l*. Of this amount there is already sanctioned, or being sanctioned, 325,000*l*., to be expended as follows:—

	£
Reconstruction No. 3 jetty	109,500
Outside berth, East Pier	179,500
Protecting Arm, South Arm knuckle	36,000
	325,000

1890. Then the improvements you contemplate in the Victoria Basin will be completed in the course of the next two years?—Yes, two and a half years. We will have No. 2 complete, I hope, in twelve months. I should say that in two and a half years we will have four deep-water berths.

1891. When do you propose to commence work on the new basins shown in pink here on this plan*?—Well, the only portion shown in pink is that protecting arm.

1892. We are now talking about the Victoria Basin?—Yes.

1893. Here, there is another large basin indicated in pink?—The first portion we intend starting with as a protecting arm. Of course, our great point is to get these two jetties completed as soon as possible.

1893A. I do not see where the two jetties are?—(*Witness indicated the position on the plan.*)

1894. What is the pressure on your harbour accommodation? Are you full of vessels?—In the early part of the week, on Tuesday, I know there were 16 vessels inside and one outside. That is all we can accommodate.

1895. You are absolutely full this week?—Yes. On Tuesday they did not know where to put the vessels.

1896. Now about the anchorage outside: Are you contemplating any measures for the improvement of it by extending the breakwater or by dredging?—The breakwater is to be extended as a part of the scheme.

1897. We may take it, then, that if this scheme is put through in the next two and a half years you will be able to accommodate vessels drawing up to 36 feet 6 inches of water?—Yes.

1898. With a length up to 800 feet?—700 feet.

1899. 786?—Yes, say, 750 at the East Pier.

1900. Can you tell us about the Australian vessels calling here: you have a large number of vessels bound for Australia which call for coal?—Yes.

1901. What operations do they go through?—They are coaled from the quay direct from the truck by electric cranes, and from the waterside. Probably two-thirds from the quay and one-third from the lighter.

1902. Do they take on cargo?—Not a great amount.

1903. And the Australian boats homeward bound, do you have a large number?—Yes.

1904. For similar operations of bunkering?—Yes, but not very much on the homeward voyage; they take more at Durban. Of late, they have been filling up with cargo instead, cargo being the most paying proposition, on the outward voyage.

1905 Where do they re-coal?—Here. They often take up to 2,000 tons.

1906. (**Sir Alfred Bateman.**) Is there a tendency of late years to take more coal at Durban and less here in the home-going vessels?—Yes. I think that is more of a traffic question. They have the figures, which would be more authentic on the question.

1907. You say they take more cargo?—They fill up with cargo when they leave home, and fill up bunkers here.

1908. (**Sir Rider Haggard.**) Is there any difficulty here in ultimately providing any depth of water necessary to the probable developments of shipping in future?—No difficulty up to, say, 40 or 42 feet of water.

1909. Could you do 45 feet?—Yes, at enormous expense.

1910. Between 42 feet and 45 feet; is that where the great expense would arise?—Yes.

1911. Because of the nature of the bottom?—Yes.

1912. Is the bottom rock?—Yes.

1913. Beyond 42 feet it could only be done at great expense?—Yes.

1914. We have had evidence from which it was freely anticipated that the time would come when great ocean-going ships might be required to draw 45 feet and be 1,000 feet long. But up to 42 feet would there be any great expense?—No.

1915. You can easily provide at a moderate expenditure then for any vessel drawing up to 42 feet or up to 40 feet?—Yes, the scheme is for 40 feet.

1916. You told us it would take 3,000,000*l*.?—Yes, slightly over.

1917. How is that money to be found?—By loan, I presume.

1918. At present you are only spending a tithe of that—300,000*l*.?—It is voted.

1919. And in a certain number of years you will complete the whole scheme?—Yes, but I would not say it will be 300,000*l*. each year.

1920. Can you tell us at all in what period of time you anticipate these improvements will be finished?—Yes. I should say the whole scheme should be completed in under ten years.

1921. If it were completed as you have sketched it that would be sufficient, I suppose, to provide for any shipping which we can at present anticipate would come to this port?—Reasonably anticipate, I think.

1922. Do you find an increasing number of steamers calling here on the road to Australia?—Yes, certainly.

1923. That route seems to be becoming more popular, is it not?—Yes, I think so. Holt's "Blue Funnel" have just started, also the "India" line.

1924. And you have no difficulty in coaling?—No.

1925. Supposing there was a great line of mail steamers running here, you would have no difficulty in coaling and docking them in a moderate time?—That all depends on the draught of the boats.

1926. When your scheme is completed there would be none?—None.

1927. (**Mr. Sinclair.**) The work is carried out by money voted by the Government?—Yes.

1928. Does the increased expenditure from time to time involve increased harbour dues?—I should say no.

1929. The harbour is not looked to to produce revenue which will provide any fixed rate or approximate rate on the expenditure of capital, is it?—I could not very well answer that question, but I do not think it affects the dues—that is the money voted for the construction work.

1930. How is the sum which represents interest on increased expenditure provided, or is it not looked to to be provided at all?—It is not looked to in regard to most of the harbours here.

1931. There is no expectation of revenue being produced that will provide an equivalent to the interest on expenditure?—Not sufficient revenue. I do not think any harbour in the world pays in itself.

1932. The expansion of trade would necessitate improvements, and that in itself would bring in revenue to the country?—Yes.

1933. And that is the only aspect of reproductiveness which is looked at in making these improvements?—Yes.

1934. (**Mr. Garnett.**) You think the number of ships calling here on the way to Australia is increasing?—Yes.

1935. Are they increasing at the expense of the Canal route, or is a natural increase brought about by increased trade between Australia and Europe?—Increased trade.

1936. You are not of opinion that the increase is at the expense of the Canal?—Not to any great extent. The large liners must come this way.

1937. It is a *bonâ fide* increase of trade which probably tells equally on both routes?—Yes.

1938. (**Mr. Bowring.**) Could you tell us about your dry docks?—We have only one. We could take in the "Kildonan." That is about the largest we could accommodate—11,000 tons, I think it is

1939. Have you in contemplation any further development?—Not at Cape Town. I may say that the Government have been in communication with

* Not reproduced.

the Admiralty regarding Simonstown, and I understand that in the case of emergency the Admiralty would be quite prepared to allow boats into their dock at Simonstown.

1940. Those docks are capable of taking very large vessels?—Yes.

1941. How far is it from here?—Twenty miles.

1942. (**Mr. Lorimer.**) I would like to ask you about the tables on the fourth page of this paper.* The capital expenditure at Cape Town is practically the same as at Durban, and yet your interest is about 20 per cent. less. Was it that you were able to borrow at a cheaper rate?—That is really a traffic question.

1943. Could you say anything about maintenance? Durban is about 50 per cent. more than you. Is that because of the dredging necessary?—To a very great extent.

1944. (**Chairman.**) Could you tell us what is the comparative cost of bunker coal here and at Durban?—I understand that the rates are as follows:—*Coaling at Durban.*—f.o.b. and trimmed into bunkers, 15*s.* to 16*s.* per English ton. *Coaling at Cape Town.*—Natal coal f.o.b. and trimmed into bunkers: No. 1 quality, 24*s.* per English ton; No. 2 quality, 26*s.* per English ton; Transvaal coal, 22*s* 11*d.* per English ton.

1945. Does your coal come from the Transvaal?—Yes, by rail.

1946. There is a very low rate down?—Yes.

1947. Can you tell us anything about the comparative quality of the two?—I should say the Transvaal coal is very much more free from sulphur, and the great point is that it does not fire by spontaneous combustion. That is the most important point. You can keep it for twelve or eighteen months. Natal coal is very liable to spontaneous combustion.

1948 I understood there was a scheme for extending the breakwater, but not in a direct line—in a more westerly direction?—A sort of "dog's hind leg"?

1949. Yes.—It was not carried out. It was proposed to make it 1,000 feet straight. This was about ten years ago and there was no money for construction work. The "Titan" crane—probably the best in the world—was not wanted, so it was hired out to Sir John Jackson, and it rebuilt the north pier at Tynemouth. Since then the Admiralty have bought it.

1950. The present scheme does not form part of your big scheme?—No, not the 3,000,000*l.* scheme. I may say we have three dredgers. The big dredger will dredge up to 200 tons an hour. Last year it dredged 125,000 tons.

1951. It delivers 200 tons an hour into the hoppers alongside?—Yes.

1952. (**Sir Jan Langerman.**) In view of the washaways in the past through the north-western gales, how will the extension of the breakwater be affected by those gales?—The extension is solid rock work.

1953. We have had solid work in the past and it has not stood the washaways?—Not solid work; it was rubble.

1954. You anticipate no trouble, then, from the gales?—No.

1955. You have had masonry work washed away?—No, it was rubble.

1956. It was undermined?—Yes, and the blocks have fallen down the slope, which is a very long one—300 feet.

* *See* Appendix, p. 157.

Cape Town, Monday, 2nd March 1914.

Mr. Henry T. L. Leefe, Assistant Manager at Cape Town of the Union-Castle Mail Steamship Company, called and examined.

(*For the evidence of this witness relative to the Mail Contract see p.* 59.)

1957. (**Chairman.**) You represent the Union-Castle Steamship Company?—Yes.

1958. What is your position?—Assistant Manager at Cape Town.

1959. In special charge of what department?—I have had special charge of the coal department, but that was only a part of my work.

1960. We are anxious to hear from you the position of the coal and bunkering business at Cape Town. I would like you to tell the Commission what the actual bunkering conditions at Cape Town are?—For the year 1913, 252,000 tons of coal were bunkered at Cape Town. The bunkering rate for the greater portion of that coal was 26*s.* per ton.

1961. Put on board?—Yes, and trimmed into bunkers—26*s.* That is for the best class of coal, for which the greatest demand exists.

1962. Was that Natal coal?—Yes.

1963. Does the figure of 252,000 include a certain amount of Transvaal coal or not?—That includes a very small proportion. I could not say how much. Certainly under 10,000.

1964. What are the respective prices of Natal and Transvaal coal here?—This year the Transvaal price trimmed into bunkers is 23*s.* 6*d.* and the Natal price 26*s.*, as last year.

1965. And then at that difference of price which kind of coal is preferred by ships?—Natal coal, undoubtedly.

1966. At what difference in price would Transvaal coal be preferred?—That is rather a difficult question to answer, because it is essential that steamers should receive the best class of coal available, and the fact that there has been for the last two years a difference of 2*s.* 6*d.* per ton in favour of Transvaal coal has not been sufficient to command very much sale for it at Cape Town. So the difference must be in excess of 2*s.* 6*d.* a ton.

1967. It has been said that, as compared with Welsh coal, Natal coal is about 7 per cent. inferior in calorific value; is that correct?—I do not know.

1968. The statement was that Natal coal was 7 per cent. worse than Welsh, and Transvaal coal about 7 per cent. worse than Natal?—I should say the difference between the best Natal and Transvaal coal is more like 10 per cent. It is very difficult to say exactly, but all our South African coals vary so much in quality, Natal coals particularly.

1969. Can you tell the Commission what the price both of Natal and Transvaal coal has been at Cape Town during the last five years?—The Cape Town and Natal prices of coal have been:—

1910—26*s.* 6*d.* 1911—23*s.* 6*d.* 1912—24*s.*
1913—26*s.* 1914—26*s.* That is Natal coal. As regards Transvaal coal, the price last year was 24*s.*, and that was the first year in which the Transvaal coal has been quoted for bunkers in quantities at Cape Town. The old railage rate on Transvaal coal placed it quite out of the market.

1970. When did the new cheaper railway rate come into force?—October of last year.

1971. What is the lowest price at which Natal coal has been quoted in Cape Town?—You mean for bunkers? The last five years 23*s.* 6*d.* was the lowest, and I am almost certain it is the lowest that has ever been quoted.

1972. It is now half-a-crown dearer than that?—Yes.

1973. Can you give us the reasons for the rise?—Yes, the increased cost of coal at pit head and occasionally the increased cost of chartering explains why the rate has been variable from year to year.

1974. What is the railway rate from the pit head to Durban?—On ordinary coal exported to Cape Town?

1975. Yes,—6*s*. 8*d*. per ton. The export of coal is subject to a special export rebate of 1*s*. 1*d*. per ton. I am referring to Imperial tons of 2,240 lbs.

1976. Now what is the actual railage?—The actual railage may, therefore, be accepted as 5*s*. 7*d*. on bunker coal.

1977. That is for a haul of how many miles?—241 miles.

1978. That gives a rate of how much per mile?—One third of a penny per mile from Hatting Spruit to Durban.

1979. Is that owing to the high passes—the heavy gradients?—It is downhill, of course. It is downhill from the mines to Durban; the difficult haulage is back again to the mines.

1980. I thought the line went over two high passes?—That may be: I rather think there is a rise.

1981. You do not speak from technical knowledge of the railway difficulty?—No, I do not.

1982. Then I have been reading the report of the Select Committee on Railways and Harbours, and I see that the complaint was made that the Natal coal was dearer in Cape Town than in Karachi. The examination was conducted from the point of view of the desirability of cheap bunkering of coal in Cape Town, and the complaint was made that bunker coal cost ships more here than at the far more distant point of Karachi?—I am not acquainted with that, but I should doubt it.

1983. Does a large amount of Natal coal go to Karachi?—A large amount every year.

1984. I am quoting now from the evidence given before the Select Committee on Railways and Harbours. The question was: "What is the price of Natal coal to-day?" Answer: "26*s*." And then again—"It costs more at Cape Town docks than in Karachi"?—I very much doubt that, because freights last year were unusually high, and it was difficult to obtain steamers on short charter, and on the face of it, it hardly seems possible.

1985. Then it was further asserted in evidence before this Committee that prices of bunker coal here at Cape Town had been advanced owing to the establishment of a monopoly agreement between the producers or transporters; what can you tell us about that?—I should like to say in the first place that we were not asked to submit any evidence on that point to the Select Committee. I may explain that Mr. McLean, the General Manager of the Company here, appeared as a witness during the earlier sittings of the Select Committee, and he was not asked a single question in regard to the Cape Town coal trade. Subsequently, and without any knowledge on our part, certain old competitors of ours, who, I have no doubt, gave their evidence in perfect good faith, gave evidence, but we were not aware of this until almost the close of the Committee. As soon as we heard the nature of the evidence submitted we requested that we should be heard in reply, but Mr. Burton, the Chairman of the Committee, replied that the Committee had practically completed its labours and it was too late to give evidence, so that all the evidence which appears in the report of the Select Committee is subject to correction from our point of view, and we do not admit anything in the nature of a monopoly, and we are further prepared to prove, if it is necessary to do so, that most of the evidence given was of a most misleading description.

1986. I do not think we need go into details about the controversy, but anything of a general nature that you can tell us will be welcome?—On the question of a monopoly, it was clearly stated that we had entered into a combination with the collieries in Natal with the object of raising prices of coal. Now, may I say in the first place, that that statement is absolutely void of truth? A combination of collieries in Natal certainly did take place. The Union-Castle Company is the largest individual purchaser of Natal coal. For our own protection, therefore, and our own bunkering requirements in this country, we had to take some action. We need something in excess of 300,000 tons a year on the coast. When we learned that a certain number of the collieries had formed themselves into a combine, we were greatly afraid that the object would be to put up the price of coal, and in order to protect ourselves, Sir Owen Philipps, the Chairman of the Company, entered the market and secured an interest in two of the collieries, and the position then between ourselves and the other owners was really one of warfare. So far from raising prices it was the other way, because, while we might sell 25,000 tons at Cape Town as bunkering merchants, on the other hand, our consumption—in our own steamers—was over that quantity. So that on the face of it, whatever the object of the combination was, it could not have been the raising of prices. And then, so far from having a monopoly, I may say we entered into this arrangement with eight collieries to purchase nearly 700,000 tons of coal. There was naturally a good deal of friction between ourselves and the associated collieries when they discovered we had secured an interest in two collieries, and they demanded that we should purchase 200,000 tons of coal for 1913 in excess of our actual requirements, and, as a matter of fact, we did enter into that agreement for 700,000 tons, although we knew that we could not dispose of more than about 500,000 tons of coal in South Africa. In return for the purchase of an excessive amount of coal, we became their sole selling agents as far as the Cape ports were concerned—that is to say, they undertook that they would not sell coal at any coast ports except they passed their orders to us. This was to enable us to get rid of this enormous amount of surplus coal, and it constitutes the claim that we were in the position of great monopolists, and that we took advantage of our position to force up bunkering rates. Now it is true that the mines entering the combine produce a very large amount of coal. The total output for 1913 of Natal mines was 2,600,000 tons. The associated collieries produced 1,450,000 tons. The two collieries in which we had secured an interest produced 350,000 tons of coal last year, so that there was a balance of 800,000 tons produced by collieries outside the combination, which coal was available for purchase at any of the coast ports in this country, and with such a large quantity of coal in the market it cannot be said that we were in the position of monopolists. In any case we were appointed sole selling agents for the associated collieries, which was a very fair concession to make to us in view of the excessive amount of coal we contracted to buy. I may say that there was a considerable amount of trouble in getting coal during 1913 owing to strikes and labour troubles and other reasons. Our actual purchases only amounted to 518,000 tons instead of 700,000 tons, and the mines let us off the other balance because they could not deliver owing to the strikes and industrial trouble.

1987. Is there anything in the nature of a monopoly for the transport of coal from Durban to Cape Town, I mean sea transport?—None whatever. We were always in competition with another colliery. The South African collieries, which are controlled by De Beers at Kimberley, have a colliery of their own, and they also have a collier of their own, and this has always been running down the coast in opposition to us as regards the Cape Town bunkering trade.

1988. Is the colliery in the Dundee district?—It is in the Hatting Spruit district. I believe it is suggested in this evidence that we had working arrangements with the South African collieries, but so far as the bunkering trade is concerned it is not true.

1989. You said just now that the total amount of bunkering done in Cape Town in 1913 was 252,000 tons of coal?—Yes.

1990. Of which you did how much?—Including our own steamers we did 225,000 tons

1991. And excluding your own steamers?—We bunkered to outside steamers 191,000 tons.

1992. You did 191,000 tons as compared with 252,000?—Our competitors did 27,000 tons.

1993. And the balance is Transvaal coal, is it?—This includes a certain amount of Transvaal coal, but not very much. The balance is coal supplied to our own steamers. We bunkered steamers outside our own 191,000 tons, and we bunkered our own steamers 34,000 tons.

1994. Has the bunkering business at Cape Town developed rapidly of late years?—Yes. Of course, we are no longer in the bunkering trade. We withdrew from it at the end of last year. We found it was not sufficiently profitable for us to justify us in encountering the criticisms to which we were subjected. And that fact alone, I think, is in itself a sufficient answer to the question as to whether we were monopolists.

1995. This trade is now in the hands of whom?—Two or three firms. Mitchell Cotts & Co. are perhaps doing the bulk of the business, and Parry Leon & Co., who act for the Mutual Bunkering Company, consisting of Bucknall's, and Ellerman's, and the White Star line of steamers.

1996. So that a large number of firms are now in competition in this business?—Well, not a large number. I dare say four or five altogether.

1997. Is the competition from the Transvaal actually increasing or not?—Yes, it is.

1998. Can you give us any figures?—I am afraid not, because we are now out of the trade, and really serious Transvaal competition only commenced from January of this year. Last year, although the rates were reduced in October, shipowners had entered into their contracts for the year and could not take advantage of the rate. But this year, I believe, larger quantities are being brought down from the Transvaal.

1999. Then as regards the bunkering contracts. They are made for the year, I suppose?—Yes.

2000. And fixed up in December?—Well, towards the end of November, because the contracts with the collieries have to be entered into some time before.

2001. Who makes the contract? Is it the local firm here which contracts with a line like Ellerman's, or the White Star line, or the Blue Funnel line?—So far as the Union-Castle Company was concerned, Mitchell Cotts & Co. secured the bulk of our business on commission and they themselves entered into their own contracts.

2002. They contracted with you to buy the coal and they contracted with other lines to supply bunker coal at a given rate throughout the year. Is that it?—Yes.

2003. You have told us the current prices for bunkering coal at Cape Town; can you give us the corresponding prices at Durban?—Yes, for the years 1910 to 1914. For 1910 it was 14*s.* 6*d.*, for 1911 14*s.* 6*d.*, for 1912 14*s.* 9*d.*, for 1913 16*s.* 6*d.*, for 1914 17*s.*

2004. You have then a price of 17*s.* at Durban comparing with 26*s.* here?—Yes.

2005. There is a difference of 9*s.*?—Yes. I am only dealing with the best class of coal all through.

2006. What is the current rate of freights between the two ports?—7*s.* a ton.

2007. What are the coaling facilities of the port of Cape Town here?—Well, I am afraid they are not quite sufficient to meet the actual requirements of the trade; they are behind Natal, for instance, in coaling appliances.

2008. We would like you to give that in some detail?—Well, in discharging coal, for instance. It is discharged by the use of transporters and iron buckets containing from 1 to 1½ tons.

2009. Discharged from the railway trucks or from the ships?—From the collier into the railway truck or store. But it is in connection with the bunkering that great improvement should be made, I think. Unless the steamer lies alongside a wharf containing transporters or cranes, the coal has to be carried on to the ship by hand, and even from the waterside the coaling arrangements are very primitive. Coal is raised in baskets from the lighters on the water side of the steamer by means of the ship's gear and dealt with by hand. It is a slow and cumbrous process. I have no doubt that the harbour officials will see the necessity of improving it. Indeed, in connection with the 100-ton floating crane for Cape Town docks, I understand it is intended to use this crane in connection with bunkering of steamers from the water side, and this should enable the work to be done considerably quicker than it is at the present time.

2010. I understand that the coaling appliances on the quay-side are inadequate?—With regard to coaling appliances on the quay-side of our long south arm there is no crane. The coaling is done by hand.

2011. What loss of time does it involve as compared with the more modern arrangements?—I am afraid I cannot answer that question, except that all up-to-date bunkering ports in the world have machinery which does the work faster than by hand.

2012. Have you made representations to the harbour authorities?—Oh, yes, and I believe that they have been seriously considering the advisability of increasing the coaling facilities.

2013. Are there many complaints by passing steamers as to the inadequacy of the coaling arrangements here?—Not at Cape Town, I think, because, as a rule, the steamers have been freely supplied at Cape Town. In fact, up to the end of last year I do not think any steamer was ever kept waiting for coal. It frequently happens that at Durban, singular though it may seem, owing to labour troubles and the inadequacy of trucks, steamers are continually kept waiting for coal, but here at Cape Town up to the end of last year there has been no waiting. This year it has not been quite so, because during the late railway strike coal was unobtainable from our South African sources, but I think this port has an excellent name as a bunkering port, and the Australian ships, I think, appreciate that fact.

2014. Can you give us any figures bearing upon the increase in the number of Australian ships calling here either on the outward or homeward journey?—No, but I think they have increased very considerably.

2015. And you cannot say whether this route is gaining favour as compared with the Suez Canal route?—I should say that 60 or 70 per cent. of the Australian trade goes *viâ* the Cape.

2016. That is outward?—Yes, that must be a higher proportion than some years ago, but I am not in possession of the actual figures.

2017. Who would be competent to give us that information?—I do not know whether the local agents of the Australian line would be in that position.

2018. **(Sir Alfred Bateman.)** Is there not a Registrar of Shipping here?—No, but there is a Shipping Master. The Customs department may have records.

2019. **(Chairman.)** You will probably agree that in the interests of South Africa it is highly desirable to encourage the Australian trade passing this way in preference to other routes?—Oh, yes, quite.

2020. And one of the most important considerations would be facilities for speedy and cheap bunkering?—Yes.

2021. What can you suggest as likely to conduce to these objects?—In the first place, I doubt whether the variation of the bunkering rate from 26*s.* to 28*s.* would make any difference as regards steamers calling at Cape Town. I do not think a difference of 2*s.* a ton would influence a single ship to go to Durban in preference to Cape Town. I do not think the price of bunkers here, within limits, is a factor in inducing steamers to coal at Cape Town.

2022. Surely the price of bunker coal must be one of the considerations?—I do not think so, when the alternative is to deviate to Durban.

2023. Can you tell us the proportions that bunker here and that bunker at Durban?—Outwards? I doubt whether very many do. The bulk of the outward steamers bunker at Cape Town.

2024. And the homeward at Durban?—Yes, because they call there for cargo and passenger purposes.

2025. Is there nothing you can suggest in the interests of South Africa and the Empire generally which will improve the conditions affecting the Cape route?—I suppose the question of deepening the harbour is very important. The increase in the size of steamers and particularly their draught must to a considerable extent depend upon the deepening of quays in the ports of South Africa.

2026. I suppose that deepening affects the Union-Castle boats as well as the Australian ones?—Yes.

2027. Are you hampered or limited by the depth now obtaining?—No, not at present, but I should prefer

that my answers be confined to the coal matters. I am under instructions from the head office.

2028. **(Sir Rider Haggard.)** I suppose there would be no difficulty in bringing the facilities of Cape Town up to the higher standard, would there?—No difficulty at all as far as I know. It is merely a matter of expense.

2029. Is there any prospect of the difference between the price of coal at Durban and Cape Town being decreased in favour of this port?—I doubt it, unless the railways are prepared to further reduce their rates.

2030. Are the rates high?—No, they are unusually low. The railway carries from the Transvaal, and it also applies to Natal coal, five or six tons of coal for one penny a mile.

2031. **(Chairman.)** That is one-fifth or one-sixth of a penny per mile?—Yes.

2032. **(Sir Rider Haggard.)** How does it compare with the ordinary rates of coal?—I do not know. It is a fighting rate.

2033. Not a payable rate?—I doubt it.

2034. What are they fighting?—What they considered to be, on the evidence submitted to them, an unfair combination between the Natal Collieries and the Union-Castle Company.

2035. There is no prospect that that rate will be further lowered?—I do not think so.

2036. **(Sir Alfred Bateman.)** You refer to the rate of 5*s.* 7*d.* for 241 miles from the colliery to Durban?—Yes.

2037. The inland coal rates for the same distance on coal consumed in Durban are about 11*s.* 1*d.*?—Yes. You will hear all about that grievance at Natal. The underlying principal, of course, is to attract steamers to Natal for bunkering and also to increase the export trade in Natal coal, and for that purpose they give an unusually low rate of 6*s.* 8*d.*, less 1*s.* 1*d.* for export rebate, but even that rate is proportionately twice as high as to Cape Town. I mean the bunkering rate of 5*s.* 7*d.* on coal from the mines to Durban, viz., one third of a penny per ton per mile is twice as high as the rate between Natal mines and Cape Town—viz., one-sixth of a penny per ton per mile.

2038. The through rate?—Yes.

2039. **(Chairman.)** Is it 5*s.* 7*d.*?—The railway rate is 6*s* 8*d.* subject to a rebate of 1*s.* 1*d.*

2040. **(Sir Alfred Bateman.)** So it comes to this that the coal consumers have to pay for the other coal being exported cheaply?—Yes, there is very serious discontent in Natal on that very point. But the defence of the Government is that they want to attract steamers to South African ports for bunkering purposes.

2041. And this is done by the Railway and Harbour Board?—Yes.

2042. How were you able to engage in these undertakings? Is it in your Articles of Association that you may own collieries and deal in coal?—As a matter of fact it is not an ordinary part of a steamship business, and it was not altogether willingly that we entered into the arrangement. We were induced to enter in order to protect our own interests as large coal consumers. That was one of the inducements in 1907 when we commenced acting as coal merchants. We did it in order to protect our interests and we did it somewhat grudgingly and the business grew until it became a large business.

2043. Were you not liable to an action for pursuing objects which were not in your Articles?—Surely it is open to a steamship company to enter into any trade it likes.

2044. Are you not a public company, and could you do that in England?—I think so, it depends on the Articles of Association. It has been done by other companies, especially on the West Coast of Africa. We were rather forced into it to limit the price we should be obliged to pay for our own bunkers. We are the largest individual consumers of coal in the country.

2045. This is all over now and you have no present intention of re-entering the business?—We have no present intention.

2046. You do not know of anything likely to affect those extraordinary rates?—No, I do not think I can suggest how they should be reduced.

Cape Town, Tuesday, 3rd March 1914.

Mr. F. COOK, Managing Director of F. Cook Company, Limited, called and examined.

2047. **(Chairman.)** You are Managing Director of the firm, F. Cook Co., Ltd., coal contractors and machinery importers of Cape Town?—Yes.

The witness submitted the following statement:—

Coaling at Cape Town: its past, present, and possible future.

I am the managing director of F. Cook Company, Ltd., coal contractors and machinery importers, of Cape Town.

About the year 1901 I saw there was a prospect to do a trade at this port in Welsh coal, and thereupon imported a cargo of 5,000 tons. This I disposed of before its arrival, and continued to bring out more cargoes, having in the meantime secured the Admiralty contract as well as contracts for the German and other Navies, very little coal of any description being taken at this time by ordinary steamers except by the Union-Castle Company boats, who at this time coaled extensively at this port with Welsh coal brought out by themselves in tramp steamers.

A few years after this small parcels of Natal coal were brought down here for trial, but failed to find a ready market. The first real help, however, it received was by the Cape Government Railways dropping Welsh coal for their requirements. The prejudice against its use, however, died hard; little or no bunker trade was done at Cape Town, as the excessive charges for handling killed any prospects of selling at a price tempting enough to induce the cargo boats from England to take coal at this port. We however chartered a steamer and sold Natal coal from East London to German S.W. ports. The charges at the Cape ports and the delays at the German ports left us generally with a loss, while at this time there entered into competition with us several steamship companies either selling Natal or Scotch coal. The feeling was so much against Natal coal in the Cape and German S.W. ports that after delivery we have had the coal thrown on our hands and had to accept the buyer's offer to take it away.

We continued to stick to the Natal coal, confident there was a great future for it and well knowing that the complaints were mostly unjust. Cape Town, however, was greatly handicapped by the antiquated way in which coal was handled and the prohibitive charges made for any service rendered. The charges to land a ton of coal and re-ship it for bunkers was as follows:—

	s.	*d.*
Landing and dock dues	1	3
Use of bags	1	0
Cartage to storage site	2	6
Storage, say	0	6
Filling bags and loading in wagons and delivering to ship	3	6
Trimming in ship	1	0
Per 2,000 lbs.	9	9

(This work is now performed by the present Administration for 2*s.* per 2,240 lbs. as against 9*s.* 9*d.* for 2,000 lbs.)

So you can see that to try and do a bunker trade one had to overcome many obstacles. Prejudice to the coal was gradually overcome, excessive charges and old-fashioned methods of handling gradually disappeared, and in every reduction made by the Government the corresponding amount was allowed to local buyers and ships. At this time many firms and agents as well as shipping companies were in competition, and the chance of a fair profit was remote and so many retired from the contest; one shipping company, however, remained in the trade, and with ourselves did practically the whole of the bunker trade, it having increased from a few hundred of tons to 130,000, tons per annum. This continued to increase till about three years ago it had reached 380,000, and every prospect of going on the same rate of increase if the methods were continued.

Railway strikes in Natal and Australia affected the coal trade and caused losses in several ways, and Transvaal coal being then introduced for the first time by steamer from Delagoa Bay. The railage from the Transvaal being prohibitive, Natal coal, now having entirely ousted the imported article owing to the railways, after Union, giving it the most favourable terms and facilities, had the entire Cape trade at its feet, but, unfortunately for Natal, they have always resented the Cape's bid to become a bunkering port and could never see that the trade we at this port were doing was captured from the islands and supplied to steamers bound for Australia and New Zealand who would never go so far out of their way as Durban. This feeling continues to this day, and considering that local people did the pioneer work, taking all risks in buying for cash their coal, their action is a very poor one in return for such enterprise.

Two years ago a shipping company took a more prominent part in the coal trade, and, I believe, purchased one colliery and secured the controlling influence in two of the largest Natal collieries, and were then able to dictate terms to all the other collieries who were worth considering, with the exception of two others, bound by their contracts to the Government, who could not actively take part in the combine then formed. The collieries were then bound to sell only to the shipping company for any Cape port, India, or Mauritius. This naturally hit several coal brokers in Durban and elsewhere, and as we ourselves could not purchase coal as in past years, we retired from the trade for the time being.

An appeal was then made by us to the Government, and an enquiry held which disclosed the fact that the price of Natal coal for bunkers had suddenly gone up 4*s.* to 6*s.* per ton, and this port's trade was endangered thereby. The only hope was a cheap overland rate from both Natal and the Transvaal collieries, and this allowed the vast coal mines of the Transvaal to find an additional outlet, and although under normal circumstances Transvaal coal cannot compete with the Natal article, the present conditions are about equal. Coal, however, is still too dear at Cape Town, but could only be cheapened by one or more collieries in Natal having their own depôt here and selling at a reasonable pit mouth price plus freight and other charges. This possibility was placed before all the collieries in Natal two years and more ago by a very lucid memorandum and personal explanation, but the combine and a rise in price was the response.

Our last two years' trading in coal brought a profit of about 100 per cent. on the capital after the deductions of many commissions to brokers, agents, &c. Coal was then the lowest it had ever been—20*s.* to 22*s.* 11*d.*—and it is quite possible to again sell at these figures.

Under the system of coaling done here by the Government, who handle all the coal from the arrival of the merchant's steamer till it is sold and put aboard the steamer calling for bunkers, satisfaction is given to steamship companies, who may be sure of getting their full weight, and there are very few places where quicker work can be carried out, while the kaffir labour used is equal to the best in the world.

Government, by their action, have made the bunker trade, and should continue to see that the port does not lose its good name.

Natal coal is more varied in its qualities than the Transvaal article, and in no part of the world is there such a difference in so close an area. Some of the Natal coals are very liable to spontaneous combustion, and heating has taken place when the coal is wet after four days on ship to such an extent that men could not stand on it without boots, while storage in heaps or hulks has always resulted in heating or fire. It is only fair to state that this fault is entirely absent in many Natal coals.

Natal coal for bunkers is too cheap in Durban, and one could wish they were far-seeing enough to combine and sell their own products in Cape Town as well as Durban at a more uniform rate; they would double their sales in Cape Town and increase their profits at Durban. If I were controlling the interests of Natal collieries I should let Durban look after itself and concentrate all my energies on capturing the Cape Town business.

The Transvaal has a Coal Owners' Association, which, unlike the Natal combine, do not confine their business to practically one buyer, who spoils their market but sells at a price far lower than it need do, and are out to do the trade. We have never done business with Transvaal coal, except during the strike in Natal, having constantly pushed the Natal article. Transvaal coal is very even in its qualities and is an exceptionally easy coal to fire, with very little clinker, and for this reason firemen using it after Natal coal prefer the former.

The cheaper railway rate has given it a chance and it has kept the bunker trade open for Cape Town, which, prior to its arrival on the scene, seemed doomed.

Cheap coal is the making of any port in the position of Durban and Cape Town, most steamers only being able to call at one in the outward or homeward journey, so that neither captures the trade of the other.

Storage bins are needed in Cape Town for bunkering direct into steamers or into lighters, as the present handling will be a loss to the Government, although the bunkering must be retained at any cost.

Despite what is said to the contrary at Durban, Cape Town must, if properly developed, become a coaling port, and the bigger the ships are built the less likely are they to go further afield for their coal. The bunker coal comes here by rail or water from the producing areas of Natal and Transvaal, and there should exist no jealous feeling against Cape Town for the good work she is endeavouring to do, but, as I said before, let the Natal collieries have their own depôt here and sell their own coal

2048. (*Chairman.*) What amount of business do you do in the bunkering trade here?—Not very much now, but until three years ago we did the bulk of the bunkering business.

2049. Why has your proportion diminished?—We were running steamers to Natal, our trade continually increased, and we had larger steamers each year, but three years ago we were unable to purchase coal from the same colliery as before on account of arrangements being made with another firm to take their supplies, and we could only purchase through that other company, which meant, of course, we had to pay the same price as they were selling to others; we would be selling coal at the same price we gave for it. We had, therefore, to retire from the bunkering trade for the time being.

2050. What are you doing now?—A small amount of overland trade, and nothing in the bunkering trade.

2051. Is it Transvaal coal?—Some of it is Transvaal. We get it overland for various industries.

2052. You have been completely cut out of the bunkering trade?—Yes.

2053. Why have you been cut out?—There was a combination formed among the Natal collieries, and they agreed to sell to one firm only for the Cape ports, and the people we had been dealing with for many

years could not supply us, so we had to go out of the trade.

2054. When you were in the trade you could deliver bunker coals at what price?—21*s.* 6*d.* to 22*s.* 6*d.*

2055. What is the price now?—The price now is 24*s.* and 26*s.* Of course, when it was in the hands of one firm the price was put up, although there was a reduction of 1*s.* per ton on export coal allowed by the railways on all coal exported from Durban.

2056. Have you gone into the bunkering trade with Transvaal coal?—No; because we have always pushed Natal coal, and at that time it was impossible to deal with Transvaal coal because the railage was so high. There was an inquiry held in regard to this question last year by the Government, and they then reduced the railage both of Natal and Transvaal coal.

2057. What are the rates now on Natal and Transvaal coal?—I cannot give you the figures at Cape Town, because we cannot bring coal to Cape Town from Natal. They would not deliver anywhere nearer than Paarl, and I understand they were not allowed to do so, so we have not brought Natal coal overland to the coast.

2058. In your memorandum you state that it is of great importance to Cape Town to have cheap bunkering coal in adequate quantities?—Yes, since the Government reduced the excessive rates which they used to charge, it enabled us to sell coal so low that ships called here which never called before. Instead of taking Welsh coal at the Islands they would come here and take 1,000 tons and upwards, and the trade went up by leaps and bounds.

2059. When was that?—That commenced about four or five years ago. There was a great prejudice against Natal coal at first. You could not sell a hundred tons to ships unless they were short. We have had to take it to German South-West Africa.

2060. Do you consider the present condition of affairs satisfactory?—No, I do not.

2061. Unsatisfactory for what reason?—I think it is unsatisfactory purely on account of the present price and because there is not a free trade done in Natal coal.

2062. What you object to is the combination between the Natal collieries?—Yes.

2063. Do you object to anything else?—I do not object, so far as the combination goes, if they will only sell to any buyer the same as the Transvaal Coal Owners' Association.

2064. You do not object to the combination, provided it fixes a minimum price?—No, I think it is rather a good thing.

2065. You object to it being dealt with only by one agent?—Yes.

2066. Now as regards the competition between Transvaal and Natal coal—what have you to say?—I think that as prices are between the two coals, it is more or less about equal because we look upon Natal coal as being a little superior to Transvaal coal.

2067. How much superior?—It has been stated about 12 per cent., but I would not say it was, because it has been used very considerably down here, and they are beginning to like it. There is not so much clinker about it, and it is cleaner burning. We use Transvaal coal on two whalers which we have, and we find it satisfactory, but if the Natal collieries were to have their own depôt here and sell coal cheaply, then I do not think that the Transvaal coal would have much show, because they could afford to sell coal here at 21*s.* and make a good profit.

2068. How do you arrive at that?—We used to sell coal at 21*s.* 6*d.*, and there were several rebates off it which left us in many cases 1*l.* a ton, and still we came off with a good profit. That was the last two years that we were in the trade and were keeping our steamers fully employed. We had delays on account of strikes, but if you took the average we could sell coal at 21*s.* and still leave a good margin of profit.

2069. Now give the Commission the details of the 21*s.*?—If you take the pit's mouth price, that is 7*s.*, then there is 6*s.* 8*d.* for railage to the points.

2070. Is that f.o.b.?—No, that is f.a.s. Putting on board and the charge for trimming, which is done by the Government, means another 7½*d.* per ton. That gives you 14*s.* 5½*d.* Now, if you export that coal to any of the Cape ports, or to any other ports, they allow you 1*s.* rebate from the railage, which brings it down to 13*s.* 5½*d.*

2071. We were told that it was a little over 1*s.*?—Yes, I think it is 1*s.* 1*d.*

2072. **(Sir Alfred Bateman.)** It is 5*s.* 1*d.* for 241 miles by rail to Durban, is it not?—Well, we reckon 6*s.* 8*d.*, with 1*s.* 1*d.* off.

2073. **(Chairman.)** 1*s.* 1*d.* off brings the cost to 13*s.* 5½*d.*?—Yes. As soon as you bring the coal to these docks the Government takes charge of it. You discharge the coal yourself and we act as our own stevedores. We put the coal into lighters which are the property of the Government, or into the railway trucks, also the property of the Government, or into bags, also the property of the Government, and the coal is then taken away and weighed, and they render us an account of what we have in the lighters and in the trucks. For that service, putting it on board ship and trimming it into bunkers, the charge is 2*s.* per 2,240 lbs.

2074. That includes storage?—Yes.

2075. For an indefinite period?—Yes. You would work your whole stock out in a month's time or less.

2076. They take delivery of that where—on board your vessel?—No; on the quay. We pay for the cranes for discharging it and they receive it and give us a return of weights. When bunkering a steamer they sort the trucks out and the quantity required and put it alongside, put it on board, and give us railway receipts. The whole of that service is done for 2*s.* That brings it to 15*s.* 5½*d.* Well now, if you put the freight at 5*s.* per ton, which includes discharging but not loading, from Durban to Cape Town at 5*s.* a ton, I think it is a very fair margin, because I know what it cost us when we were running a boat called the "Tiger." That brings it to 20*s.* 5½*d.*, or taking off the extra 1*d.* you may say 20*s.* 4½*d.* Well, you can sell that coal for 21*s.* 6*d.*, or say 21*s.* These figures are all outside figures. No doubt, if you are keen, you can save on various charges, such as the purchase of the coal, for instance. I have put these figures high, but the other figures are actual. Now that coal to-day is sold at 26*s.*

2077. The difference between your 21*s.* 6*d.* and 26*s.* is extra profit to whom?—To the monopolists.

2078. Do you mean the Natal Association?—No, they only sell and bind themselves to the other company. That monopoly or combination is quite all right so long as the man who has the money can buy what he requires.

2079. We were told yesterday that the Union-Castle Company is out of the business?—I believe they went out at the end of last year and gave the boat over to another company, but I think the same conditions still exist. I am not behind the scenes and I only know from what can be seen on the surface, but they certainly had a monopoly at one time and nobody could purchase coal for any of the Cape ports. I believe they purchased a controlling interest in two of the collieries in Natal and also purchased the Hatting Spruit Collieries, and naturally the other collieries fell in with this combination. Now I reckon that if the Natal coalowners want to get the business here they must combine amongst themselves and have their own depôt here. It would relieve the congestion of trucks in Durban also. They could sell their coal here very well if they were content with the cost of freight and charges plus their ordinary selling charges. They could sell coal here, leaving a good margin of profit, at 21*s.*

2080. That allows them 7*s.* at the pit head?—Yes, and I maintain that 5*s.* is too high for freight between here and Durban.

2081. Do you speak from your own experience?—Yes.

2082. What would it cost you to do it?—I cannot give you the actual figures. We had to go into

liquidation ourselves. It was rather a pity because we made 100 per cent. the first year and the second year 16*s.* 5*d.* on every 1*l.* share. Our capital was 10,000*l.*, but we only subscribed 5,000*l.*, as that was all the capital necessary to run the steamers, but we made that profit by our enterprise after all commissions were paid. We paid a little over 1,000*l.* per month for a steamer carrying a little over 5,000 tons. She could do two trips a month from Durban to Cape Town.

2083. What has happened to the "Tiger": have you sold her?—No, we only chartered her. The Union-Castle Company took her up after we went out of the business, and I believe another company has taken the boat over from them. She is a Norwegian boat.

2084. You allow a difference between 21*s.* 6*d.* and 7*s.*, that is 14*s.* 6*d.* for getting the coal from pithead into bunkers, trimmed on board at Cape Town?—Yes, 14*s.* 5½*d.*, but with the 1*d.* difference it is 14*s.* 4½*d.*

2085. How would that rate compare with the rate from Natal by rail?—I could not give you the figures to Cape Town because we have nothing brought into Cape Town.

2086. Assuming there was no agreement which prevented them, how would the railway rate compare?—I think it would be somewhere about the same figure.

2087. You have no experience of Transvaal coal?—I have used it, but I have never done any business in Transvaal coal.

2088. In the current year what do you estimate the proportions of Natal and Cape Town coal for bunkering?—From what I can gather, which may not be accurate, I should say over one-third used would be Transvaal coal and I should say that next year it will be quite half and will increase in future.

2089. What is the total amount per annum approximately in tons?—When we finished off we had, between the two firms, sold, I think, 380,000 tons and that was worked up from 10,000 when we started. It has gradually increased because the charges were reduced by the Government for handling coal.

2090. In your memorandum you say that Natal coal is very liable to spontaneous combustion and heating?—Yes.

2091. Is Transvaal coal superior to Natal coal in that respect?—Yes. I do not know of a case where Transvaal coal has heated. We had only one cargo down from Delagoa Bay during the strike, but there were no signs of heating. We have had cargoes from Natal that you could not stand on. It has been smoking after only four days and we have had several bad fires on hulks where we have stored it and in heaps on the shore.

2092. You say firemen prefer Transvaal coal because it is cleaner to handle?—Yes, they can clean the fires much easier.

2093. What are the disadvantage as compared with Natal coal?—I do not think that the calorific value is quite as good. It is a little dirtier, but it is better than a good many of the cheaper Natal coals. It is a good coal and I do not wish to use anything else. Certainly at the present time I would not use Natal coal at the present price.

2094. **(Sir Alfred Bateman.)** Who is this mysterious company which does the business now?—The Union-Castle Company.

2095. But they are out of it?—They may be out of it now, but they were not in reference to the time I mentioned when we had to give up business.

2096. At the present time?—I do not think so. I do not say they are taking contracts this year, but I understand they sent a circular letter recommending people to take coal from another company which had been working with them for many years.

2097. This other company has now the monopoly you say?—I should say so.

2098. Do you know?—No. I only go from what I can see and what is generally stated in the trade.

2099. You have shown us very clearly that the coal which comes from Durban by sea is now at a rather high price, but I do not quite understand what this 1*s.* rebate is for?—The 1*s.* rebate is given by the Government as an inducement to the export trade.

2100. In the figures I have the rate is 5*s.* 7*d.* per ton from Hatting Spruit Colliery, 240 miles from Durban, that is 6*s.* 8*d.*, minus 1*s.* 1*d.*?—Yes.

2101. Is that the 1*s.* 1*d.* you speak of?—Yes.

2102. Because even at 6*s.* 8*d.* it is very much lower than the rail charge for coal for consumption in the Union, which is about 9*s.* to 10*s.*?—Yes, there is a great preference given to the export trade. I do not know that it is altogether right, especially in the case of Cape Town. It does not seem fair, because the factories in Durban should be entitled to a lower price for coal as well as Cape Town. But we do not get it here in Cape Town, the intermediate man takes it. I mean to say it is no advantage if it is in the hand of one firm.

2103. You cannot go into the market and buy coal at Cape Town for anything like 21*s.*?—No.

2104. You must get it from this company, which has a monopoly and charges 26*s.*?—Yes.

2105. I suppose for consumption it would not be 26*s.*, would it?—Some of that charge is for putting it on board, that is 2*s.* I think you pay 1*s.* dock dues and other charges, so it is more for local consumption.

2106. It would bring the figure from 26*s.* to 27*s.*?—Yes, more than that. For delivery in the 1¼-mile radius it is 2*s.* 6*d.* a ton, and the seller has to provide his own bags for delivery outside the dock gates.

2107. You mean to say that the factories in Cape Town pay more than 26*s.*?—Yes, there is 2*s.* 6*d.* extra for delivery of a short ton, and then there are dock dues and *ad valorem*, 1*s.* 3*d.* Then there is off-loading into the customers' store and bags, about 1*s.* On the other hand the Harbour Board puts you on board a long ton for 2*s.*, and they will handle it and store it for you. They give preference to bunkering, they have done all they can for bunkering and it is really due to the action of the Government that bunkering has increased in this port.

2108. Meanwhile the consumer in the big factory has no favour shown to him?—No. The best thing is to buy Transvaal coal overland.

2109. Which is brought down by rail at what price?—I cannot give you the figures, we only buy it for our ships, we do not deal in it. All through these years we have consistently stocked Natal coal, and have never attempted to act as agents for any Transvaal coal, and we have no opportunity of dealing in the coal at present. We only have the opportunity of going back into the Natal coal trade, and bringing it down by steamer to Cape Town when it is free to purchase.

2110. You cannot purchase it now?—No.

2111. Would you charter a boat?—No, because we cannot get a cargo. I hope we shall some time, but at present we are right out of it, and we used to do the bulk of the bunkering business for years.

2112. Your complaint is that the bunkering price is too high?—Yes.

2113. And for consumption in factories in Cape Town it is still higher?—Yes, because there are extra charges that you do not have to pay for bunkering. Bunkering is done on shore at a loss, they cannot do it for 2*s.*

2114–5. But there is a big margin for you if you charge 26*s.*?—The Government does the work and the Government is losing money. It is the merchant who is making the profit. I know the Union-Castle Company are not dealing in coal now, but I do not think that they are altogether disinterested.

2116. **(Mr. Campbell.)** Which is the port which is mostly used by boats passing here from Australia?—Cape Town is the port which they call at on the way out from England. A few years ago they would only stay out in the bay and take in vegetables and fresh meat and then proceed again without taking in coal, but when the price of coal came down they decided to enter the dock.

2117. Some of the lines called at Durban, did they not?—No, I do not think any of the lines running to Australia called there. They take their bunkers at

Durban coming back. The boats go from here to Australia, and although the price is higher here it would not pay them to go to Durban for coal, because it means at least four days out of their way. Perhaps a steamer burns 150 tons a day, and that is a big item. They have to go right out of their course to get to Durban, and it takes another day to get into the straight again.

2118. Is the call on the homeward voyage induced by the coaling facilities at Durban?—No, I think they pick up cargoes and, no doubt, the two things combine.

2119. Do you know what is the comparative cost of coaling at South African ports, say, Durban and Cape Town, compared to Aden and Port Said?—No, of course, it is all Welsh coal which is used there.

2120. Welsh coal is much higher now?—Yes, I have not got the figures. I could get them, but the rate is much higher.

2121. This combine of the coal mines in Natal, does it include all the Natal mines?—No, I believe there are two collieries not included.

2122. Are they large collieries?—Yes, they supply the Government with coal and they must stand outside —they must not join in any combination.

2123. Do they do much business outside the Government contracts? Do they cut the price of coal of the combine companies?—No, they sell on the same terms. One of the largest collieries, the Hlobane Colliery, we dealt with for one year, but we found them to be always short of coal and they could not produce sufficient to fill their orders, and we could not get as much coal as we wanted.

2124. Is the fact of their being outside the combine simply the result of the Government contract?—Yes, I think so, although they sell coal to the combine, or have done.

2125. Has it made any great difference in the price?—Yes, to Cape Town.

2126. What is the amount that you estimate?—I reckon the difference is between 21*s*. 6*d*. and 23*s*. and 24*s*. up to 26*s*., but the price at 23*s*. was really a special price. We paid that to one of the best collieries, and we paid a higher price than the market price because they were not anxious to sell as their sales were greater than their output.

2127. The difference per ton at 27*s*. made by that combine you suggest would be about——?—I should say about 4*s*. a ton.

2128. And you think yourself that that is a price in excess of what it should be?—Yes, in excess of what it should be if Natal collieries sold their own coal at Cape Town as they should do. This is their market, and they should sell their coal here.

2129. You speak in this memorandum of Natal coal being liable to spontaneous combustion. Is that a peculiarity confined to any particular areas, or does it affect one individual mine?—No, some of the collieries in a certain area are different. Coal from one colliery will be liable to spontaneous combustion, while in another case there is not much risk. It is not like Scotch and Welsh coal, where the area is more or less the same. There is a lot of difference in the Natal coals even in a small area.

2130. **(Mr. Sinclair.)** I understand the position of this combine to be this: That if a merchant who wanted to re-sell coal and chartered a steamer sent it to Durban for supplies it could not get them?—That is so.

2131. But if a steamer wanted to use coal for its own purpose would it be supplied?—Yes, there is no restriction on a ship coming along for bunkers; they could get it from any of the collieries or their agents. It was only, I believe, when it was shipped to Mauritius, India, or Cape ports that the distinction was made.

2132. The effect of this combination is to prejudice, in your opinion, both private consumers and local industries?—Yes, I reckon Cape Town suffers.

2133. I want to ask a question about storage. First of all, for bunkering coal are there any storage bins in the Cape?—No, we have only one coal store belonging to the Government in the docks, which has up to recently been entirely used by mail boats. That is the only store used with Temperley transporters, but otherwise they store in the open or in trucks and lighters.

2134. There is always storage for bunkering purposes?—Yes, there is always plenty of storage.

2135. But you think the cost of handling might be materially reduced if adequate provision was provided?—Yes, if they had proper storage bins it would be much better.

2136. As to the means used for loading. Are they modern?—Yes, I think so. Unless you had a coaling berth, I do not see any other way you could bunker a ship than the present. If you had a berth where you could put the ship they might load up direct, but we have not got one in Cape Town, because we have to bunker three or four ships at one time in different parts of the docks; so you run the trucks straight to the vessel and load from the trucks.

2137. Do you think, having regard to the configuration of the port, there is room for improvements in that direction?—Yes, I think so, but I do not think that they have been justified in doing it up to now, because the bunker trade has not been settled sufficiently.

2138. You think the time will come?—Yes, when they erect proper coaling and storage bins.

2139. Now as regards superior coals. Is there any quantity stored at the Cape?—Do you refer to Natal coal?

2139*a*. Yes, Natal, which is your best coal, I understand?—At present there is a fairly large quantity of coal in the docks from Natal and the Transvaal. I believe many steamers have come out lately well filled on account of the strike, and coal has been coming down here and has accumulated, but it is very seldom we are ever short of coal.

2140. I think you said that at the price at which you used to sell before this combination you made what you considered a satisfactory profit?—Yes, a splendid profit.

2141. We may take it, I suppose, from that that there were no bad debts?—No, we never made a bad debt in the bunkering trade. In the retail trade we made many, but in the bunkering trade you generally get your money from the steamer before you pay for the coal from the colliery.

2142. So the margin of profit in the case of bunker coal may well be smaller and yet satisfactory, whereas in the case of the household trade and industrial trade the margin has to be larger owing to the possibility of bad debts?—Yes, and, of course, for every one factory which is sound you would quote a lower price than another which is doubtful: you could not give a certain rate to every customer, but for bunkering you could do so, and the Government will do the work of bunkering for you. The only thing you have to pay is the freight between Cape Town and Durban. That leaves 9*d*. a ton clear, which is a good margin.

2143. I gather from you that the intervention of the Government has been to develop the bunkering industry in Cape Town?—I think if it were not for the action of the Government since Union, we should be doing no bunkering trade in this port. The Government have encouraged it and done everything they could to assist it, and this last move, when they reduced the railage on coal from the Transvaal overland, that just saved the situation, otherwise I think you would be paying 30*s*. a ton in Cape Town for bunkers at the present time.

2144. I presume there is no State-owned coal mine here?—No.

2145. All the coal mines are private?—Yes.

2146. Can you give us any information as to the attitude of the Government on the subject of this combination?—I know they were opposed to it, and supported the reduction of the railage on Transvaal coal so as to enable that coal to come in, which I think was the best that could be done.

2147. **(Sir Jan Langerman.)** What class of steamers bunker here, are they liners, cargo boats, or tramps?

—They are purely cargo and passenger boats to Australia.

2148. And no tramps?—Practically none of them.

2149. Could you increase your bunkering trade if you had cargoes to offer?—Yes, I think so.

2150. Is there no cargo at all?—No.

2151. Is everything in the hands of the steamship company?—Yes. If you have anything to ship you must make your arrangements with the conference lines.

2152. There is no chance of reducing rates of shipping through other channels?—No. No independent boats come out here.

2153. **(Mr. Tatlow.)** Is the present cost of coal at Cape Town seriously affecting the bunkering trade?—I think it has suffered a good deal, and some steamers have been prevented from taking bunkers who would have done so.

2154. It has prejudiced them?—Yes.

2155. You say that you object to the Natal coal-owners combining to fix the price?—No.

2156. You complain of the high price here, but is not the high price here the result of the combination?—No, the coalowners are getting the same price for the coal as we paid.

2157. Does the difference in price, then, go to this one firm here?—Yes, they are certainly reaping the benefit. It is just a matter of what they like to put on as freight between here and Durban.

2158. How far are the collieries from Durban?—About 300 miles.

2159. Durban must have advantages against Cape Town in regard to bunkering coal?—Yes.

2160. You do not imagine or hope that the two places should be absolutely equal?—I do not know. I think if the coalowners themselves in Natal had their depôt here there is no reason why they should not level up the price and make a uniform rate. I mean they could afford to charge less here and more in Natal. They would catch steamers here which are not going to Durban. It is a different business. I think it is for the want of information, but I think Natal is slightly jealous of Cape Town in the bunkering trade, but I wish to point out that we are not doing them out of their business at all. We are bunkering steamers that would not go round to Durban because it is too much out of the way. If you could put Natal coal down here at 1*l.* per ton I think that in twelve months' you would double your trade.

2161. At the time you withdrew from this bunkering trade was it your principal business?—Yes, the coal trade was practically all our business.

2162. **(Chairman.)** Your point is this then: that Cape Town competes in the bunkering trade less with Durban than with Teneriffe and Madeira?—Yes. I do not think it affects Durban at all so far as the business we do is concerned except, that we are selling their coal here instead of their selling it themselves. We are good customers to Durban and we are not selling in opposition.

2163. You are of the opinion that cheap bunker coal in Cape Town would bring vessels here which otherwise would bunker at the islands?—Yes. We do not wish to take away any business from Natal. There are no tramp steamers coming here now: those which came here years ago were only coal steamers and that business is now finished.

2164. What is the price of Welsh bunker coal on the islands?—I cannot give that, but it is pretty high. It pays them to come here and get Transvaal or Natal coal if the price is low.

2165. They get Transvaal or Natal coal here cheaper than English coal on the islands?—I would not say that they would at present, but taking the price at which we were selling they would give preference to us.

2166. You suggested in answer to Mr. Tatlow that they might sell at the same price at Cape Town as at Durban, but surely the natural thing would be to add the cost of the freight from Durban to Cape Town?—But I would like to look at it from a broader point of view. I maintain that coal is sold in Durban too cheap considering their position. There is nobody to compete with them and they could very well afford to put 2*s.* or 3*s.* a ton on their coal at Durban and take it off here provided they were doing the business themselves.

2167. **(Sir Jan Langerman.)** Cannot Delagoa Bay successfully compete with Durban in this matter of bunker coal?—Well, it means another two days' delay to go up there and they are not so quick in bunkering. I do not know whether they are any better now, but they did not bunker so quickly formerly. That is their only opposition and that is not a serious one. I maintain that there is plenty of trade for Delagoa Bay and plenty for Natal and you could increase the trade for bunkering at this port if you only made the coal cheaper.

2168. **(Sir Alfred Bateman.)** You approve of the Government policy of charging a lower rate for bunkering than the ordinary rate?—Yes, but the consumer does not get the advantage. When that reduction was made there was no reduction to the shipowner. The Government charged less money but the price has nevertheless gone up. I do not think the collieries have benefited.

2169. So the middleman has got the difference?—Yes.

2170. **(Mr. Tatlow.)** Who is it that pays the railway rate?—The buyer. We pay the railage. Every time we have had a reduction from the Government we have brought down the price for bunkering. We worked on a very small margin and we have been very successful, and it could be done far cheaper by the collieries themselves than we can do it.

Mr. John William Jagger, M.L.A., Wholesale Merchant and President of the Cape Town Chamber of Commerce, called and examined.

(*For evidence of this witness on "Land Settlement and Irrigation," "Steamship, Post, and Telegraph Communications," "Empire Development," and "Fruit," see pp.* 6, 60, 160, *and* 317 *of this volume; and on "Exhibitions," "Statistics," "General Trade Questions," and "Legislation," see pp.* 124, 127, 145, *and* 181, *of* [*Cd.* 7707].)

2171. **(Chairman.)** Are you satisfied with the harbour accommodation which you have at Cape Town?—I think we are fairly satisfied here at the present time. I know that some improvements could be made, and I think the Railway Department has taken the matter in hand. For instance, we require deeper berths. I think we have a system here that does not obtain in any other country. We charge a ship dock dues on the basis of so much per day. For instance, the mail steamer would only pay 1*d.* per ton on her gross registered tonnage, as she stays less than 24 hours in dock on arrival. This is the only place I know of where that system exists and the result of it is that ships coming to this port get good despatch. In fact we put a premium on their getting out quickly. We brought this principle into use during the late war when we were pressed for room and when sailing vessels used to lie out in the Bay for 60 days and more. We gave the premium to vessels to go out quickly and I must say it worked very satisfactorily to the shipowners and to ourselves, up to now. Naturally we get a better use out of our quays under this system than could be got if a vessel could lie 12 or 14 days there. Now she gets out probably in half the time. So far as quay space is concerned we are not badly off. I believe that there has been tremendous impetus to the coal business of this port through that arrangement. It has given another outlet to the Transvaal coal. Up to that time Transvaal coal was only used for local consumption, which was certainly very big, and the only export trade they could do was *viâ* Delagoa Bay. But now, of course, Transvaal coal has three outlets, the mines, Delagoa Bay, and Cape Town. I think that it is a satisfactory arrangement all round.

good for the Transvaal mine owners and their coal, and also good for the railways and good for the trade of Cape Town.

2172. And you think that, now conditions at this port in regard to bunkering are satisfactory, it should assist from the point of view of the development of trade generally?—I think so. They might improve the coaling facilities in some directions, but I do not think it is a very pressing matter. As regards prices, under the old arrangement when the bunkering business was in the hands of the Union-Castle Company they had two prices, 24*s.* for one class, and 26*s.* for the other class, trimmed into bunkers. Now we can buy Transvaal coal at 22*s.* 10*d.* trimmed into bunkers. So it has brought down the price.

2173. What is the value of Transvaal coal compared to Natal coal?—So far as my information goes it is about 10 per cent. inferior calorific value. A lot of vessels call here on the way to Australia which cannot call at Durban. When we started bunkering it was not with the object of competing with Durban but with Cape Verde Islands, which are a big coaling centre. When vessels leave the Cape for Australia they take a southerly direction and do not go to Durban, which would mean going a considerable distance out of their way. But homeward it is another matter. They strike Durban first and then come down the coast. I think it works to the advantage of all concerned.

2174. I suppose you would recognise that deeper berths are extremely important with the view to attracting Australian vessels to this port?—Yes, I think it is more important, perhaps, to this port of Cape Town than to any other port in South Africa because we do expect to get a good portion of the Australian trade, especially in regard to coal.

2175. In your judgment, is the cheapness and the regularity of the supply of bunker-coal here a considerable factor in attracting vessels to this route?—I think there is no question that cheapness is a great consideration. Coal has been greatly brought down in price latterly. Up to the 1st November last the bunkering trade of this port was in the hands of a monopoly, the Union-Castle Steamship Company. They had pretty well the entire control of the Natal coal trade down here, and all the Natal coal which came down here in those days had to be brought in steam colliers from the Natal mines. Any coal agent here who wanted a supply had to obtain it from the Mail Steamship Company. This was pointed out to the Government pretty strongly and we said that in our opinion it was not satisfactory that the trade should be in one company's hands. So stringent was the combination that the Natal collieries would not deliver coal at Cape Town overland. To meet the situation the railway department then quoted a very low rate from the Transvaal. Up to that time Transvaal coal could not be had in Cape Town except *viâ* Delagoa Bay, being brought down by a vessel from there. The rate quoted was 14*s.* per ton, less 1*s.* rebate to coal bunkered, from Witbank in the Transvaal to Cape Town.

Cape Town, Wednesday, 4th March 1914.

The Hon. Sir THOMAS WILLIAM SMARTT, K.C.M.G., M.L.A., called and examined.

(*For the evidence of this witness on "Land Settlement and Irrigation," "Steamship, Post, and Telegraph Communications," and on "Fruit," see pp.* 8, 64, *and* 318.)

2176. **(Chairman.)** You recognise the great importance of a cheap supply of coal here?—Yes, and I recognise it is the duty of the State to do all it can to see that by no means whatsoever is there any chance of that coal falling into the hands of a combine, especially one whose interests might not be to encourage outside shipping which might take passengers and freight.

2177. And also to make Cape Town a more convenient port of call you require to have the depths of water and the quay accommodation requisite for the recent type of ship?—Yes, I recognise from the report that the Commission has drawn up and the papers attached that, for economic transit, if you increase the size of your steamers you must increase also their draught. Under those circumstances I think that in the interests of the country the points you mention will have to be considered.

2178. **(Sir Rider Haggard.)** You spoke of the dangers of a coal combine. Is there any fear of such a thing?—I do not know definitely; the only thing that I fear would be that a combine would put up the price of coal, and that would be extremely detrimental to the general interests of the port.

2179. I suppose, if necessary, that could be stopped by legislation, could it not?—I daresay it could. It would be very difficult to do, but I know the Government have reduced the overland rates for coal for the purpose of preventing an excessive rate being charged in Cape Town.

2180. Is that recently?—I think last year.

2181. Coal is now run down here at a very cheap rate, but do you think it really pays?—Yes, indirectly. Coal is run down for the purpose of allowing ships to bunker in Cape Town at a reasonable rate, but what the rate is I do not know.

2182. It is still dearer than bunker coal at Durban, is it not?—Yes.

2183. Suppose there was a big line of large steamers running to the Cape and Australia, would there be any difficulty in the way of expense or otherwise in supplying them with sufficient coal in such a fashion that they need only coal once here, at the Cape?—I should not think so. I should think it would be in the interests of the State to do all they could to encourage traffic of that kind.

2184. Are your bunkering facilities all they should be?—I am not sufficiently expert to express an opinion.

2185. You have, I believe, some scheme on hand for deepening the docks?—I have only seen the report of the Engineer. I think this visit of the Commission has brought the subject more prominently before the public eye than it was before. It has called attention to the requirements in the way of deeper docks if we are to have great developments in the future in agriculture and general trade.

2186. **(Sir Jan Langerman.)** With regard to the coal combine. You approve of the reduction which has been made by the Government to bring coal down from the Transvaal?—I cannot say that I approve, because at present I do not really know what the condition of the rates is; but I entirely approve of the policy of doing everything within reason to see that steamers that coal at Cape Town are well supplied with bunker coal and to prevent any tendency on the part, of a combine to put up the price of such coal to an unreasonable figure.

2187. But you are aware that the Castle Company by capturing the business and making agreements with the coal mines in Natal and carrying the coal in their own bottoms, have practically created a monopoly in the coal trade?—What I think anybody would say from a common sense point of view would be that a steamship company might possibly not be desirous of supplying coal to its competitors at such a cheap rate as to encourage them to alter their ordinary mode of doing business and become competitors.

2188. The position was created here by the Union-Castle Company having the bunkering trade in their own hands and charging what they liked, and also by having the local trade in household coal in their own hands, because nobody could buy any coal from the mines in Natal except through them. Under the circumstances the Government was perfectly justified in breaking up that combine by reducing the rates from the Transvaal?—I think the Government is justified in doing everything they can to break up such a combination if it exists.

2189. **(Mr. Sinclair.)** Is there, in your opinion, a coal combine in existence now at the Cape?—On that subject I have no definite grounds for expressing an opinion.

Mr. LUDWIG WIENER called and examined.

(For the evidence of this witness on "Steamship, Post, and Telegraph Communications," see p. 70.)

2190. **(Chairman.)** You are anxious to see Cape Town become a more important harbour?—It would be one of the best harbours in the world, I think, if full advantage were taken of its position. The coal gives us the paramount position, and it is the only way eastward, except through the Canal.

2191. Are you satisfied with the conditions under which bunker coal is available in Cape Town Harbour?—All the railways and harbours of the Union are owned by the Government, and that is an immense advantage. But unfortunately the political element has largely entered into the question, and there exists jealousy between the private shipping and landing interests of the various ports, which have interfered very much with free action. But at the same time through the railways being Government-owned we have a powerful control over the coal industries of Natal and Transvaal. One drawback is our coal has to be brought a longer distance from the mines than is the case in England, where the mines are close to the coast.

2192. Are you satisfied with the present conditions of supplying bunker coal in Cape Town Harbour; are they satisfactory?—Yes and no; there is uncertainty about it. We have made strong representations to the Government, when Mr. Sauer was Minister of Railways and Harbours, and through his influence on the Railway Board a flat rate for coal was introduced. Since then the flat rate has been severely attacked, due to local jealousies, instead of looking at it in a broad way, as a benefit to the Union as a whole. Other ports fight Cape Town. As long as the flat rate remains it places us in a very powerful position. The rate is 14*s.*, with 1*s.* reduction for bunkering purposes. And then we established a reasonable consolidated rate for bunkering coal from truck or lighter to ship, including trimming it into bunkers, of 2*s.* a ton. The rate at present under contracts is running at about 22*s.* 6*d.* a long ton here, on board free.

2193. Is that for Transvaal coal?—Yes, now. There is an extraordinary thing I would mention. Formerly, ships would object to take Transvaal coal. They said it was inferior to Natal. Somehow or other now, however, Transvaal coal has come to the front and is successfully competing with Natal coal.

2194. In regard to that rate of 22*s.* 6*d.* for Transvaal coal, do you consider it is as cheap as you expect to get Transvaal coal for bunkering purposes at Cape Town?—No, we have been aiming at 20*s.* That would place us in a very powerful position indeed, because the traffic that we have captured at this end of the coal business we are now doing was the bunkering trade at the islands. And what helped us very materially in that direction was because freights were very high on cargo to Australia, and naturally ship-owners preferred carrying cargo instead of coal, especially as if ships could get coal here they could carry a good deal more cargo from England to Australia.

2195. What is the coal worth at the islands?—It varies. It runs from 25*s.* to 32*s.* 6*d.*, but still they are very powerful competitors occasionally.

2196. Then regarding the question of harbour accommodation here and the depth of draught; do you agree with the view that Cape Town Harbour must be kept up to the requirements of the most modern vessels?—As long as I have been connected with the Table Bay Harbour, since 1882—and I was Chairman of the Harbour Board for some years—that was the object for which I always strove. And I may say that we have lately induced the Government to adopt a scheme of harbour improvement and for developments in the near future. The wharf where now the mails are berthed is to be widened at right angles to the breakwater. When this construction is completed we will have a 40-feet berth at low water, but in view of ships growing in size the administration has decided to increase the proposed depth to 44 feet.

2197. We have had the plans.—That would give us about four berths with a draught of over 36 feet and one of 44 feet low water.

2198–9. I think the plan which has received the approval of the Government is for an expenditure of three millions?—No, certainly not; we do not suggest spending anything near as much as that.

(Sir Alfred Bateman.) That was on the complete scheme. The expenditure in one year was to be considerably under 300,000*l.*, and the ultimate expenditure at all the ports may be three millions, or thereabouts.

2200. **(Chairman.)** Extending over a period, of which a portion of the expenditure has been immediately sanctioned?—Well, we are making a start *here.* (*Indicating on plan.*)

2201. Then that extension here has received final approval?—Yes. It will cost about 300,000*l.*

2202. **(Mr. Campbell.)** What is the work on which 300,000*l.* is to be spent?—(*Witness indicated on the map.*) A lot of rubble stone has been pitched into the sea there, they are going to fill that up and widen the wharf by means of building a retaining wall at a depth of 44 feet, which I have already stated.

2203. **(Chairman.)** When do you hope to get that completed?—We have just completed *this* (*indicating*) and we are busy with *this* (*indicating*). I suppose this will take about eighteen months or two years. We have to finish one jetty at the time, then build the other; but there is nothing to prevent us from going on at once with outside wharves. If we can only get the Union Government and the Railways to look at it in that way it should go ahead at once.

2204. It has not yet been finally approved?—Yes, it is in the scheme, but the money has yet to be provided.

2205. **(Mr. Tatlow.)** Did you say that you were not satisfied with the rate of 14*s.* per ton on coal from the Transvaal?—I did not mean that quite. I said we were trying to get it down to 20*s.* put on board. That was our aim.

2206. Is not the rate for coal from the Transvaal by rail 14*s.* and 1*s.* less for bunkered?—Yes.

2207. Which rate the railway has established lately?—If we could get coal from Natal cheap at the pit's mouth and a rate of 4*s.* a ton per boat, we could do it at 20*s.*

2208. Do you regard the 14*s.* rate as low as the railway can go?—Yes and no. Well, you see we have a great deal of stuff going up country and trucks are wanted, and so they either have to come empty to fetch the stuff from these ports or bring coal. In this respect our position is very strong—much stronger than any other port of the Union. Most of the other ports have to get down empty trucks.

2209. **(Sir Rider Haggard.)** You talked about the cost of the carriage of coal by the railway from the Transvaal. How does it compare with the carriage by sea from Durban. At present which is the more costly way?—At present the sea route would be the dearer,

because they put up the rates of coal in Natal—the Natal Coal Owners' Association—against us by nearly 2*s.* a ton at the pit. I am speaking of Natal coal brought down here by sea. Two years ago rates were 2*s.* less at the pit mouth than they are to-day. Then freight from Natal to-day is very much dearer than it was. I think all that has tended to make the price of coal from Natal at Cape Town nearly 3*s.* or 4*s.* a ton dearer last year than before.

2210. In normal conditions, which is cheaper—to bring it by rail or sea from Natal?—Of course, the railway rate is an arbitrary rate—a flat rate—so that it is difficult to say. But, on the whole, I think that if we can get cheap freight from Natal and a normal price at the pit, you could lay the coal down here about the same as the other way by rail from the Transvaal, with this advantage, that that coal is now held to be better and there is only one handling by rail instead of several by boat. The coal from Transvaal is taken from the pit and put into the truck and from the truck to the ship. But from Natal it is handled from the pit to the truck and then again into one of these big deliveries, then into the ship and then from the ship into the lighter, or truck, and then into the export ship, and in that way Natal coal is disadvantaged. Transvaal coal is not broken up so much, and there is a saving of cost to the railway in handling it in putting it on board, because they put it straight from truck into the ship and trim it into bunkers.

2211. Do you think the prospect is that coal will ultimately come here by ship or by land?—That is a difficult question to answer. It depends on the railway rates.

2212. I gather that you think that at the normal rate of cost of carriage at which the coal is carried, it would be cheaper to send it from Natal by ship than from the Transvaal by rail?—No, if the quality is good I prefer it by rail, and the shippers like it better too.

2213. But the Natal coal is the better, is it not?—Well, that is an opinion which depends entirely upon the individual's point of view.

2214. (**Mr. Sinclair.**) As regards the price of coal we have heard a good deal of evidence about the combination, and it was put to us, as I understood it, that the result of the combination had been to raise the price of coal from about 22*s.* 6*d.* to 25*s.*; but has there not in the interval been an increase of cost for coal at the pit?—Yes, about 2*s.*

2215. And a rise in freight?—Yes.

2216. Those two figures would of themselves about account for the difference in the cost?—Yes, about 4*s.*

2217. So it is scarcely fair to put the comparison between 22*s.* 6*d.* to 25*s.* without also pointing out that these two items would account for a considerable difference in the extra cost?—Yes.

Mr. K. Spilhaus, of Messrs. William Spilhaus and Co., called and examined.

(*For the evidence of this witness on "Freights" and "Bills of Lading," see pp.* 74 *and* 88.)

2218. (**Chairman.**) You have considered the question of cheap bunker coal at Cape Town?—Yes, we are interested in that subject.

2219. What can you tell us about that?—I have rather different views from some of the evidence given here the other day. I may say that Mr. Cook gave evidence and I should inform the Commission that we are the firm that he referred to who did business together with him some two years ago. We started the Coaling Company in which Cook and ourselves were equally interested, and the arrangement was, roughly, that we should finance the business and he should do the work. We fixed the capital at a nominal sum for the purpose of division of profit, and I saw yesterday that he had stated in his evidence that we made the huge profit of 100 per cent. I am afraid he has given the Commission a wrong idea. It is quite correct that we did make 100 per cent., but he forgot to mention that in the first instance when the contracts were made with the shipowners we had to give our firm's guarantee, and when we entered into contracts for the coal we had again to give a guarantee without asking him to contribute further capital, so as to make the Company's position strong enough, and when we chartered a steamer we had to give our firm's guarantee to the steamship owners; so that you see he takes no notice whatever of these facts. He tells you that we made 100 per cent., but in reality the profit made by the Company was 2½ per cent. on the turnover. If we had not treated him quite so well he would never have made 100 per cent. and we might have forced our Company into liquidation and insisted on an increase of capital.

2220. However that Company has now come to an end?—Yes.

2221. Why did you go out of the business?—Because it was too great a risk to undertake. We had to make contracts with the shipowners beforehand and before we could buy the coal in Natal, and we had to charter a steamer on a year's charter at a very high rate. At that time freight rates were going up, which made us very anxious, and we decided that the business was too risky to continue for another year, so we told Cook that we would not go on. The amount of profit would have been quite satisfactory if it were not out of proportion to the risk.

2222. The risk was that you had to charter the "Tiger" or some other vessel beforehand?—Yes, before we had a single order. We had to take orders from shipowners without a guarantee of a minimum quantity. We had to take a certain quantity every year from Natal without having a single order. We thought it was out of all reason. I am very glad we did get out of it.

2223. I think Mr. Cook also told us that one of the main causes of the business coming to an end was that the Natal collieries who supplied the trade formed a combination and passed the trade into other hands?—Well, that was not so, because we never obtained our supplies from the Natal Navigation or Glencoe Collieries. Those are considered to be the first-class coals. They and the Burnside Coal Company and a few others form the Natal Coal Owners' Association, and they were always confined to the Union-Castle Company. Our business always was with outside collieries, and we never bought from the Natal Coal Owners' combine.

2224. Do you say anything in respect to Mr. Cook's figures as to the cost of bringing the Natal coal from the colliery to Cape Town?—His figures are correct when compared with the first year in which we did business. Freights were very low. We chartered the "Tiger" for 1,060*l.* a month, and a year after that we handed her over to the Union-Castle Company and sub-let her for 1,350*l.* a month.

2225. When you had chartered her at 1,960*l.* that brought out your cost of transporting the coal from Durban to Cape Town to how much?—Under the most favourable circumstances to about 5*s.* 3*d.*

2226. Therefore, roughly speaking, the cost of carrying coal from the Natal Colliery to Cape Town, including railway quay dues and freight, was between 13*s.* and 14*s.*, which is the same figure as the flat rate on Transvaal coal. He gave us 6*s.* 8*d.* to Durban minus 1*s.*, quay dues or handling at Durban 7½*d.*, freight 5*s.* 6*d.*?—You see your freight changes according to the market. At the present time it would not be right if I said the cost would come to that. I should think it would come to quite 7*s.* to-day.

2227. That brings the cost approximately to the same figure as the cost from Witbank to Cape Town, 13*s.* to 14*s.*?—Yes, about that, but I want to say

something else. These costs are calculated not reckoning any delay. There have been very serious delays, especially lately, in loading the steamers, and this naturally increases the cost of freight.

2228. Is there not good accommodation at Durban?—There is a shortage of trucks from the collieries to the port.

2229. Now, as a firm interested in cheap freight from Cape Town, do you recognise the importance of cheap bunker coal here?—Yes.

2230. Do you consider that under the present circumstances the position is satisfactory?—No, not quite.

2231. What do you suggest?—I would suggest that first of all the Natal collieries are supplied with more trucks and that it is absolutely made impossible for a collier to be detained a fortnight or seven days, because that means additional cost which has to be met by the purchaser in the end, and, further, I suggest a better mode of handling the coal at Cape Town. The coal is not handled as economically as it should be.

2232. That is to say, the coal which is being put on board?—Yes. The discharging of the colliers is too slow altogether. I made a proposition some time ago when we intended to go in for a great combine. The combine we all thought would be very beneficial because it would combine the forces and we would be able to economise in the cost of handling the coal. We suggested that coal elevators and automatic transporters should be provided from the quay and waterside, which would enable colliers to discharge in half the time. A 5,000-ton collier arriving here on Monday should be finished on Thursday so as to reach Natal on the following Monday.

2233. What was that combine that you refer to. Had it any reference to the Union-Castle Company?—It was the Union-Castle Company and other coal suppliers interested, but there was a great outcry against the monopoly and the matter was dropped.

2234. I understand it was dropped on account of the public outcry?—Perhaps the Mail Steamship Company dropped it because they did not think it worth while to enter the combine in face of public criticism.

2235. If that monopoly had gone through do you think the price of coal would have been raised?—No, I think we could have reduced it by 2*s*. If you take the present rates of freight and the present cost of coal at Natal, the best Natal coal could be sold for 24*s*. instead of 26*s*.

2236. Trimmed into bunkers?—Yes.

2237. Allowing what price at the pit in Natal?—About 6*s*. 8*d*.

2238. What is the current price?—I think for the best coal it is 9*s*. now.

2239. That is for ordinary bunker coal, is it not?—It is only the best coal that I am dealing with.

2240. What have you to say about the Transvaal coal coming down by rail? I know that, as agents for shipping companies, we prefer Natal coal; but the effect of the Transvaal coal coming down has been to prevent any economical working of the Natal coal business because the amount of business done in Natal coal is so small that it does not pay more than oneman to work the business. It is left in the hands of one firm now and that firm has perhaps not so many resources to fall back upon as the Mail Steamship Company used to have.

2241. That is, that Transvaal coal coming in has knocked everybody out of the Natal coal business except one firm?—That is so.

2242. **(Mr. Tatlow.)** You spoke about the scarcity of railway trucks; did you mean for coal?—Yes.

2243. For coal from where?—Natal.

2244. Is it a serious scarcity?—It was.

2245. Is it still a serious matter?—I am not in the business any more, so I cannot say.

2246. You say that business has fallen off a good deal in consequence?—Yes.

2247. Did you make representations to the railway company at the time?—We made continual representations.

2248. With what effect?—In many instances they told us that the collieries were to blame and they had no coal, but when we referred back to the collieries they blamed the railways, and so it went on.

2249. Do the collieries not own their own trucks?—Not in this country.

2250. **(Sir Alfred Bateman.)** Do you consider that the present cost of bunker coal at Cape Town is fair?—Yes, because certainly Natal coal has gone up in price and I consider that the collieries did deserve this extra price.

2251. It is the combination of collieries that keeps the price up?—Yes. It did have the effect of raising the price, but I do not think that it was unduly high. Before that they rarely paid any dividend, whereas in our days they made a small dividend.

2252. **(Mr. Sinclair.)** You told us that you went out of the coal trade owing to the risk?—Yes.

2253. Was that risk brought about by combination?—No, I cannot say that.

2254. You had to charter your vessel and sell the coal before you could buy it?—Yes.

2255. That suggests a combination, does it not?—No. It is the nature of the business. It is not only done here but all over the world. Coalowners supply you with coal at a certain price but the shipowners do not bind themselves to take any definite quantity.

2256. Then there was nothing abnormal about the conditions that brought about your going out of the trade?—No, except that we could not get the best quality of Natal coal. If we could have secured the best quality of Natal coal we might have had a chance of getting business.

2257. Was that due to combination?—No, we were unsuccessful in getting it. It was a competition between ourselves and the Union-Castle Company, and they got in.

2258. There was no open market?—Yes, but the Union-Castle Company concluded their deal and we were out of it.

2259. After the Company concluded its deal you could not buy?—No. But we did the same the year before, we concluded our deals with the other collieries on the same terms. You could not do anything else, you could not have two people quoting the same coal, because there is only a limited supply. It is quite a reasonable condition. Even the present contractors make that condition, and the present contractors for Transvaal coal, a combine controlled by Sir John Ellerman, also make that condition. It is just a question of being in or out of the market. We have been in before and we may be in again next year. We do not know.

Cape Town, 6 March 1914.] [*Railways, Harbours, and Coal for Bunkering and Shipment.*

Cape Town, Friday, 6th March 1914.

Mr. WILLIAM WILSON HOY, General Manager of Railways and Harbours for the Union of South Africa, called and examined.

(*For evidence of this witness on "Steamship, Post, and Telegraph Communications," see p. 75.*)

2260. **(Chairman.)** You are General Manager of Railways and Harbours in the Union?—Yes.

2261. You have prepared a statement for the Commission?—Yes, it is as follows:—

The whole of the railways and harbours in the Union of South Africa are, with few exceptions, the property of the Government, and since the 31st May 1910—the date of the Union of the Cape, Orange River, Transvaal, and Natal Colonies—have been administered under the provisions of the South Africa Act of 1909.

The Act of Union states *inter alia* that—

> "all ports, harbours, and railways belonging to the several Colonies at the establishment of the Union shall, from the date thereof, vest in the Governor-General in Council";

and that

> "subject to the authority of the Governor-General in Council, the control and management of the railways, ports, and harbours of the Union shall be exercised through a Board consisting of not more than three Commissioners, who shall be appointed by the Governor-General in Council, and a Minister of State, who shall be chairman. Each Commissioner shall hold office for a period of five years but may be re-appointed."

The chief executive head of the department is the General Manager of Railways and Harbours, with headquarters at Johannesburg.

The Act of Union also provides that—

> "so far as may be, the total earnings shall not be more than are sufficient to meet the necessary outlays for working, maintenance, betterment, depreciation, and the payment of interest due on capital, not being capital contributed out of railway or harbour revenue."

Provision is also made under the Act for the establishment of a Railway and Harbour Fund, into which all revenues are paid and from which is withdrawn all moneys necessary to meet the expenditure of the Railway and Harbour Department, but only such expenditure as has received the approval of Parliament. Withdrawals from the fund may be made for unforeseen expenditure to the extent of 300,000*l.* or such additional sum as is represented by the excess of the actual revenue over the estimated revenue. Such expenditure, however, must be reported as soon as Parliament meets.

All profits earned remain at the credit of the fund, and are not paid to the Treasury, as was the practice prior to Union.

Expenditure on capital account is made from moneys received from the Treasury out of loan funds. Unexpended balances are returned to the Treasury.

The Administration has no liability in respect of the cost of raising or discount expenses in connection with the flotation of loans. Such expenses are wholly defrayed by the Treasury, who find the requirements of the Administration jointly with the requirements of Public Works, &c.

RAILWAY SYSTEM.

Lines open for Traffic.

The length of the railway system within the Union at the 31st December 1913, was 8,783¾ route miles, of which 8,180¼ miles are of standard gauge (3 ft. 6 ins.) and 603½ miles of narrow gauge. The mileage in each of the Provinces is as follows:—

	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
Standard Gauge (3 ft. 6 ins.).	Miles.	Miles.	Miles.	Miles.	Miles.
Government-owned	3,368¼	890	2,336	1,162¾	7,757
Private lines (worked by Government)	115¾	92½	6	4	218¼
Private lines (not worked by Government).	205	—	—	—	205
	3,689	982½	2,342	1,166¾	8,180¼
Narrow Gauge (2 ft. and 2 ft. 6 ins.).					
Government-owned	271	176¾	26¾	—	474½
Private lines (not worked by Government).	121	8	—	—	129
	392	184¾	26¾	—	603½
Total Mileage.					
Government-owned	3,639¼	1,066¾	2,362¾	1,162¾	8,231½
Private lines (worked by Government)	115¾	92½	6	4	218¼
Private lines (not worked by Government).	326	8	—	—	334
	4,081	1,167¼	2,368¾	1,166¾	8,783¾

The *capital cost* of the lines that are the property of the Government, including the cost of providing rolling stock, equipment, &c., is 82,574,580*l.* This is equivalent to an average cost of 10,032*l.* per route mile.

The *physical features* of the country traversed by the railways vary tremendously. The fact that lines have been constructed with gradients of 1 in 30 and curves of 300 feet radius in Natal, while the ruling

gradient of the main line in the Orange Free State is 1 in 100, will readily indicate the diverse nature of the country on the coast belt as compared with that of the interior.

In this respect the following particulars of the main lines from the four principal ports to Johannesburg—the principal centre of the inland portion of the Union—may prove interesting:—

Main Line to Johannesburg.	Length in Miles.	Ruling Gradient.		Sharpest Curve.	Highest point reached.	
		Coast.	Inland.		Height.	Distance from Coast.
				Feet Radius.	Feet.	Miles.
From Cape Town - - - -	958	1 in 40	1 in 80	330	5,870	940
,, Port Elizabeth - - - -	713	1 in 40	1 in 80	462	5,735	713
,, East London - - - -	666	1 in 40	1 in 80	330	5,735	666
,, Durban - - - - -	486	1 in 30	1 in 80	300	5,735	486
,, Delagoa Bay - - - -	367	1 in 40	1 in 80	410	6,463	212

Lines under Construction.

The total mileage of the lines under construction at the 31st December 1913 was 250½ miles, estimated to cost 1,334,211*l.*

These are practically all developing lines, as will be observed from their location on the accompanying map.*

Lines authorised but not commenced.

In addition to the mileage under construction, an additional number of new lines have been authorised, and construction of these will be taken in hand as soon as possible. The total mileage of these new lines is approximately 794½ miles, and the estimated cost 2,731,631*l.*

On the completion of all lines authorised, the total mileage of Government-owned lines will be 9,276½ miles.

A map* indicating the lines open for traffic, lines under construction, and lines authorised, or under survey, differentiating by colours between 3 ft. 6 ins. and 2 ft. gauge, accompanies this memorandum for the information of the Commissioners.

Policy in Construction of New Lines.

The policy of the present Government is to construct all new lines of a standard gauge, and as cheaply as is compatible with safety. Second-hand sleepers and rails are used wherever possible, and the standard of construction is decided wholly in accordance with the demands that will be made upon the line by the traffic that is anticipated. No attempt is made to lay down a new line of the same standard as that of lines already carrying fairly heavy traffic. By this means the greatest mileage is obtained from the expenditure allotted for new construction purposes.

Principal New Works.

The principal new works at present in hand are those of relaying, regrading, and deviations of the permanent way. The relaying and regrading is being carried out principally on what is known as the Cape Western Main Line; that is, the line running northwards from Cape Town to Rhodesia. Rails of 80 lbs. to the yard are being substituted for those of 60 lbs. By this means the existing lines are raised to a higher standard of efficiency to meet the increased demands that are being made upon them by reason of the increased weight of locomotives and rolling stock which are now being brought into service, and incidentally the construction of new lines with the released material is made possible at a very low cost.

A very large work of deviation is being carried out on the Natal main line—Durban to Johannesburg. The length of the deviation is 18 miles and the total cost is estimated to be 275,000*l.* When the work is completed, much heavier train loads will be taken; the ruling gradient between the coalfields and Maritzburg being reduced from 1 in 30 to 1 in 65.

* Not reprinted.

Rolling stock.

The total quantity of locomotives and rolling stock in service at the close of 1913 was as follows:—

	Quantity.
Locomotives—Standard gauge - -	1,428
,, —Narrow gauge - -	30
Total - -	1,458
Coaching stock—Standard gauge -	2,390
,, ,, —Narrow gauge -	82
Total - -	2,472
Wagon stock—Standard gauge -	24,684
,, ,, —Narrow gauge - -	325
Total - -	25,009

Since Union there has been a steady increase in traffic, necessitating the purchase of rolling stock in very large quantities. The number under each class purchased since Union is as follows:—

Purchased in:—

	1910	1911	1912	1913	Total.
Locomotives - -	63	33	61	51	208
Coaching stock -	89	193	158	137	577
Wagon stock -	683	871	939	1,227	3,720

With the introduction since Union of locomotives of high tractive power, the figure of average tractive power of all locomotives in service on the 31st December 1912 was 21,103 lbs. The locomotives brought into service during 1913 ranged from 28,000 to 36,000 lbs., so that the average for last year has been considerably increased.

The average carrying capacity of merchandise stock at the date of Union was 17·48 tons; this was increased to 18·92 tons at the commencement of last year.

With the continued increase in coal traffic there has been a constant demand for locomotives of high tractive power and wagon stock of high carrying capacity, and in some cases the traffic has reached such proportions that the capacity of many of the lines has been taxed to the utmost. This latter feature has naturally made the employment of locomotives of the highest tractive power and wagon stock of the highest carrying capacity imperative, with the result that the purchase of rolling stock during the past year has been, and for another twelve months, at least, will continue to be, in this direction. The factor of time of trains occupying sections is now a very important consideration.

Staff.

The total number of staff employed on the railways at the 31st December 1913 was :—

	Number.
European - - - - -	32,356
Natives, Indians, and coloured -	30,310
Total - - - - -	62,666

The amount paid in salaries and wages may be stated to be approximately 6,500,000*l.*

So far as the employment of the staff is concerned the conditions of service are laid down by Act of Parliament passed in 1912. Copy of this Act,* together with the regulations* framed under the Act, which reflect very fully the conditions under which all grades of servants are employed, accompanies this memorandum.

All entrants to the service are compelled to become members of the Superannuation Fund and the Sick Fund. Copy of the rules and regulations* governing these funds are also submitted for the information of the Commissioners. The Superannuation Fund involves contributions by the members at the rate of 3 per cent. of their emoluments, while the contributions to the Sick Fund are in accordance with a fixed uniform scale. The Administration pays £ for £ contributions made by all members in the case of the Superannuation Fund, and 60 per cent. of the total contributions by members in the case of the Sick Fund.

Stores.

The total quantity of stores in hand at the 31st December 1912 was roughly 1¾ millions, while the total purchases made during the year amounted to 4,630,000*l.* Of this latter amount 2,266,437*l.* was required for purchases made through the High Commissioner in London, the balance of 2,364,225*l.* representing purchases made locally.

The total quantity of coal received during the year to meet the requirements of the Administration totalled 1,671,528 tons. for which 414,483*l.* was paid. The average cost per ton of coal to the Administration was, therefore, 4*s.* 11½*d.*

Of the total purchases the largest item was that of rails, sleepers, and fastenings, totalling 1,198,235*l.* This is an abnormally high amount and was due to the large quantity of relaying and new construction work which was carried out during the year.

System of Control.

The entire control of the railway is centred in the General Manager to whom the three Assistant General Managers, each controlling their respective systems, are wholly responsible. The headquarters of each of the three systems are situated at Cape Town (System A), Bloemfontein (System B), and Johannesburg (System C). Under each Assistant General Manager, and directly responsible to him, are divisional superintendents. These officers control one of the divisions in each system. There are altogether eight of such divisions—two in System "A," three in System "B," and three in System "C"—controlled from Cape Town, Kimberley, Port Elizabeth, East London, Bloemfontein, Durban, Johannesburg, and Pretoria. In the case of the divisions controlled from Cape Town, Bloemfontein, and Johannesburg, where Assistant General Managers are stationed, the office of divisional superintendent is dispensed with and the work of the division, in addition to the work of the Assistant General Manager, is carried out under that officer. Under each divisional superintendent there are superintendents and assistant superintendents (technical, commercial, and operating), by whom the staff operating the railways are immediately controlled.

* Not reprinted.

Financial Results of Working—Railways.

The financial results of working for the year 1913 are as follows :—

Gross earnings - -	12,388,755*l.*
Gross expenditure - -	8,964,690*l.*
Net earnings* - - -	3,424,065*l.*
Net earnings per cent. of capital - - -	4·2 per cent.
Earnings per train mile -	8/1·9*d.*
„ „ open mile -	1,550*l.*
Expenditure per train mile -	5/10·9*d.*
„ „ open mile -	1,121*l.*
Percentage of gross expenditure to gross earnings - -	72·4 per cent.

Passengers carried; number of journeys :—

	No.
First class - - -	15,847,042
Second class - -	13,116,706
Third class - -	14,244,474
Total - -	43,208,422

Tonnage carried :—

	Tons.
Goods and minerals -	5,416,694
Coal - - -	6,985,532
Free hauled - -	2,313,167
Total - -	14,715,693
Train mileage - -	30,359,933
Train and engine mileage -	38,933,145

In comparison with the results of working prior to Union, the following increases and decreases are to be noted :—

——	Increase.	Decrease.	Per Cent.
Gross earnings -	1,932,936*l.*	—	18·49
Gross expenditure -	3,289,032*l.*	—	57·95
Earnings :			
Per train mile -	—	2/5·7*d.*	23·28
Per open mile -	19*l.*	—	1·24
Expenditure :			
Per train mile -	1·6*d.*	—	2·3
Per open mile -	290*l.*	—	34·9

——	Increase.	Per Cent.
Passengers carried :—		
First class - - -	6,125,048	63·06
Second class - -	4,501,827	52·26
Third class - - -	4,380,212	44·40
Total - -	15,017,087	53·26
Tonnage carried :—		
Goods and minerals -	1,678,602	44·91
Coal - - - -	1,788,458	34·41
Free hauled - - -	980,559	73·58
Total - -	4,447,619	43·32

As will be observed, the earnings have not advanced in the same ratio as that of the expenditure. There are several notable reasons that account for this. First, a sacrifice in revenue by the reduction of rates has been made since Union, which at the time of the reduction was calculated to be equivalent to a sacrifice of 1,336,000*l.* per annum. Secondly, through the

* Does not include results of working subsidiary services such as catering, &c.

development of maize, coal, and other traffic, which is carried at exceedingly low rates, the effect has been to disturb very materially the relationship of the earnings to the expenditure. A third factor is that of the increments, concessions, and privileges which have been granted to the staff since Union, figures for which are not available, but which may be stated to amount to, approximately, 900,000*l.* per annum. Yet another factor is that in 1909 contributions in respect of depreciation were not made by the late Cape and Natal Administrations. This represents an increased charge to working of 1,000,000*l.* per annum.

The total tonnage conveyed during 1913 is, I think, the highest on record, an advance being noticed in each of the main classes of traffic. The number of passengers conveyed also shows a steady increase.

The work necessary to accomplish the conveyance of the traffic mentioned above is reflected in the increased train mileage, which amounts to 10,697,489, equal to an increase of 54·41 per cent.

A statement showing the financial results of working for each year since 1909 is appended hereto, for the information of the Commissioners—Statement No. 1.

Rates and Fares.

The rates charged per mile for ordinary passenger fares, single journey, are as follows:—

	1st.	2nd.	3rd.
	d.	*d.*	*d.*
Up to 200 miles - -	2·0	1·33	1·0
„ 300 „ - -	1·95	1·3	0·9
„ 400 „ - -	1·9	1·27	0·9
„ 500 „ - -	1·85	1·23	0·9
„ 600 „ - -	1·8	1·2	0·9
„ 700 „ - -	1·75	1·17	0·9
„ 800 „ - -	1·7	1·13	0·9
„ 900 „ - -	1·65	1·1	0·9
„ 1,000 „ - -	1·6	1·07	0·9
„ 1,100 „ - -	1·55	1·03	0·9
„ 1,200 „ - -	1·5	1·0	0·9
„ 1,300 „ - -	1·45	0·97	0·84
„ 1,400 „ - -	1·4	0·93	0·79
„ 1,500 and over -	1·35	0·9	0·75

Return fares are paid on the basis of single fare plus 75 per cent., while excursion fares are generally charged at single fare for the double journey. Natives travelling by goods or recognised native trains are charged:—

Up to 100 miles - - 3rd class fares.
101 to 200 miles - - 8*s.* 4*d.* per head.
Over 200 miles - - ½*d.* per head per mile.

Suburban Fares.

In populous suburban areas a special scale is charged for passenger fares, the rates per mile for which are as follows:—

	Single.			Return.		
	1st.	2nd.	3rd.	1st.	2nd.	3rd.
	d.	*d.*	*d.*	*d.*	*d.*	*d.*
5 miles -	1·8	1·4	1	2·4	1·8	1·4
10 „ -	1·8	1·3	1	2·3	1·7	1·3
15 „ -	1·6	1·3	1	2·0	1·7	1·3
20 „ -	1·5	1·2	1	1 8	1·5	1·2

Terminals on Goods Traffic.

With a few exceptions, separate terminal charges are not levied on goods traffic; the rates, which generally taper down per ton per mile as the distance increases, is inclusive of all terminal services. On certain low-rated commodities, charged at a uniform rate per ton per mile, 10*d.* per ton is added for terminal charges.

Harbours.

As already stated, all harbours are controlled by the General Manager in conjunction with the railways.

The principal harbours are those of Table Bay, Algoa Bay, Buffalo Harbour, and Port Natal.

The total capital expenditure on harbours at 31st December 1913 was approximately £11,910,557, distributed as follows:—

	£
Table Bay - - -	3,857,893
Mossel Bay - - -	147,876
Algoa Bay - - -	1,419,238
Buffalo Harbour - - -	1,560,774
Port Natal - - -	3,927,430
Minor harbours, lighthouses, and expenses in connection with Loans - - - -	997,346
	£11,910,557

Information respecting the charges at the several harbours, together with particulars of shipping, traffic dealt with, &c., has already been furnished to the Commissioners, *vide* the Booklet issued by the Union Department of Commerce and Industries containing "Replies to questions as to the Natural Resources of "the Union of South Africa and the facilities for the "production, manufacture, and distribution of Articles "of Commerce."

A revision of the Harbour Tariffs is at present under consideration. The division of harbour working as between railways and harbours is also receiving attention, and it is hoped that it will be possible to transfer work that is at present performed by the Harbour Department to the control of railways, with beneficial results. At present the cost of loading, invoicing, &c., of goods at the harbours is borne by the Harbour Department, but it is contended that work of this nature is essentially railway work and should be eliminated from harbour working proper.

General.

The annexures* attached hereto are as follows:—

	Statement No.
Financial results of working railways—1909–13 - - - - -	1
Passenger traffic—1909–13 - -	2
Tonnage of traffic—1909–13 - -	3
Results of working:—	
per train mile—1909–13 - -	4
per open mile—1909–13 - -	5
Net earnings—total and per cent. of capital - - - - -	6
Train and engine mileage—1909–13	7
Tonnage of traffic under Commodities—1912–13 - - - -	8

	Annexure No.
Map† showing:— (*a*) Lines open for traffic (*b*) Lines under construction (*c*) Lines authorised or under survey. -	9
Regulations:—	
Train working - - - -	10
Sick Fund - - - - -	11
Superannuation Fund - - -	12
Railway and Harbour Service Act	13
Staff—salaried - - - -	14
„ —daily paid - - - -	15

* *See* Appendix II., p. 146. Annexures 10 to 19 are not reprinted.

† Not reproduced.

	Annexure No.
Working time tables, each division	16
Act of Union	17
Subject Index to Act of Union	18
Annual Report—1913	19

W. W. Hoy,
General Manager.

Note.—In all cases in this memorandum in which tonnage is referred to, it is to be understood that the figures given represent tons of 2,000 lbs.

2261*a*. **(Mr. Tatlow.)** The whole of the railways and harbours in the Union of South Africa are now, with very few exceptions, the property of the Government?—Yes.

2262. And are administered and worked by the Government?—Yes.

2263. There is a Board consisting of three Commissioners with the Minister of Railways as chairman?—Yes.

2264. The Act of Union, I think, prescribes that, so far as may be, the total earnings of the railways shall not be more than are sufficient to meet the interest charges on capital, and the necessary outlays for working, maintenance, betterment, and so on?—Yes.

2265. And that the railways are to be worked on business principles?—Yes.

2266. There is also a provision, I think, that capital may be contributed out of railway and harbour revenue?—Yes.

2267. Since Union has capital been so contributed?—No, only before Union was capital so contributed.

2268. There is another provision, that receipts from railways and harbours shall be paid into a separate fund?—Yes.

2269. And withdrawals from that fund may be made for unforeseen expenditure?—Yes.

2270. Has any occasion yet arisen for that?—Yes, there was unforeseen expenditure last year covered by increased revenue.

2271. Has the Railway Administration any liability in the cost of raising capital by loans?—No. Money is obtained from the Government at a fixed rate of 3½ per cent. for interest from the time we receive it.

2272. The length of railways at the 31st December 1913 was 8,783¾ miles?—Yes, that includes private lines. The Union railways cover 8,231½ miles.

2273. You give the total, showing that the length of private lines worked by the Government was 218¼ miles?—Yes.

2274. And private lines not so worked?—334.

2275. So that of the total mileage in the country, the Government own and work about 97 per cent.?—Yes.

2276. What amount of double line have you?—132 miles of double track, 9 miles of treble, and 5 miles of quadruple.

2277. Where is the double line?—The mileage of double track is in small portions throughout the system, partly in the Cape Colony, in the Transvaal, and in Natal.

2278. I see the capital cost of the lines, including cost of providing rolling stock, is 82,574,580*l*.?—Yes.

2279. Which is equivalent to an average cost of about 10,000*l*. per mile?—Yes.

2280. Three and a half per cent. is the interest paid?—Yes.

2281. I see the interest for 1912 is only 2,619,470*l*. Is interest not paid on the whole of the capital?—Yes.

2282. Eighty-two millions at 3½ per cent. requires 2,890,000*l*. and the interest in your report is 2,619,470*l*.?—The interest you mention is for the year 1912. The capital of 82,000,000*l*. is the figure at the 31st of December 1913. Of course, we paid interest during construction of the lines in 1912, which, when the lines are opened, becomes a charge to Open Lines Working.

2283. But you only paid 2,619,470*l*. on the 82 millions, which is not 3½ per cent. It looks as if some of the capital does not bear interest from the railway revenues?—We pay interest monthly; that is, as we receive it from the Treasury. If we paid interest for the full twelve months on the money received during the year, the amount would be greater still.

2284. You say the features of the country traversed vary very considerably and that lines have been constructed in grades of 1 in 30. In view of that do you consider the cost of 10,000*l*. a mile a reasonable cost?—Yes, bearing in mind the adverse physical features of the country traversed.

2285. I see the grades are 1 in 40 and 1 in 30?—Yes.

2286. That is the gradient that rules the load?—Yes.

2287. Therefore, it does not conduce to economical working?—Well, the heavy sections, that is, where traffic is heavy, are confined to the main line in Natal and the eastern portion of the Transvaal between Pretoria and Delagoa Bay. The rest of the country, with the exception of the Hex River Pass, is comparatively easy, and perhaps you would like to know that in Natal, where the grade is 1 in 30, we shall have in a year or eighteen months' time, a grade of 1 in 65 south of Ladysmith and practically a double line from Mooi river to Durban.

2288. Does that mean the construction of a diverted line?—Yes. We are constructing about four deviations and improving grades and curves at a cost of 1,300,000*l*. approximately.

2289. You say the total mileage under construction at present is 250 at an estimated cost of 1,334,000*l*.?—Yes.

2290. Does that include cost of land?—Yes.

2291. What sort of lines are they? Are they spread over various parts of the country?—The lines under construction are mainly agricultural development lines, with the exception of those at Koffyfontein and Messina. These are for mineral development.

2292. They are spread over the country pretty well?—Yes.

2293. Are they new lines or continuations of present branches?—Some are continuations and some are projected from the main line.

2294. Are these 3 feet 6 inches gauge?—Yes, practically all.

2295. Unless, I suppose, in cases of a continuation of an existing gauge?—Yes.

2296. Do you favour the 3 feet 6 inches gauge compared with the other?—Yes, but of light construction where necessary.

2297. Who determines the location of these lines?—The Engineer-in-Chief.

2298. And yourself?—Yes, subject to the approval of myself and the Railway Board.

2299. Are they initiated by the railway management?—The construction is initiated by the Government, reported on by the Railway Board to the Government, and a report submitted to Parliament.

2300. In regard to those lines which are for the purpose of developing agriculture, are any of them in districts where it is probable that they will not pay for some time?—Yes, in some cases.

2301. In such cases does the district contribute anything towards the cost?—Only in one case, that is the line between Wolseley and Ceres, about 10 miles.

2302. Then you say that, in addition to the mileage under construction, a number of new lines have been authorised amounting to 794 miles at an estimated cost of 2,700,000*l*.; that works out at 3,440*l*. per mile?—Yes.

2303. Why is that so low?—Last year the lines introduced to Parliament were subjected to a very careful examination by the Minister and the Board, the standard of the lines was reduced so as to be more in keeping with the traffic expected to be carried and the estimated cost in consequence was considerably reduced as compared with the previous estimates.

2304. If the lines now under construction had been subjected to the same criticism, would the estimates for them also have been reduced?—Yes. I think so. I would like to mention that the cost of our lighter lines has been on a standard too high for a line in its early stages of development.

2305. You are building the lines in such a way as is really only necessary to carry the traffic for some time to come?—Yes, certain narrow gauge lines, for instance, cost 2,500*l.* to 3,000*l.* per mile; certain other broad gauge, or rather, 3 feet 6 inches gauge, lines cost 2,400*l.* to 3,000*l.* per mile, and the average last year of light and standard lines was brought down to 3,400*l.* per mile.

2306. What weight of rails do you use for these new lines?—Second-hand rails, 60 lbs. to the yard, generally taken from the main lines which are being relaid.

2307. In that case how do you appraise the value; do you deduct a certain amount for wear from the weight?—Yes, the value of the 60-lb. rail is taken and the difference between value of the 60-lb. and the 80-lb. rail is charged to capital account, the balance to renewals, and labour charges to working.

2308. But if you use a 60-lb. rail on the branch lines which has been used for twenty years, I presume you deduct a portion of its value?—Yes.

2309. That helps to reduce the cost of these lines?—Yes.

2310. Now you say the policy of the construction of these new lines is to make them as cheaply as possible compatible with safety?—Yes.

2311. Who is the arbiter of safety?—The Engineer-in-Chief.

2312. You have no Government control over that?—No. The line is subject to the examination of two authorities—the engineer who constructs and the engineer of open lines. Both engineers, together with the operating officer, inspect all new lines before they are taken over, and any matter which the maintenance engineer has occasion to call attention to must be reported upon then.

2313. Do you signal these new lines?—They have been signalled in the past, but in regard to these branch lines it is not the intention in future to signal them until the traffic justifies it.

2314. Are there no signals?—Only at junction stations or at any station where the approach is dangerous.

2315. Do you work them on a time system?—By a telegraph paper order, that is for trains to proceed.

2316. Not by the train staff?—No, except on busy lines. We work them by telegraph or telephone.

2317. Does that apply generally to your system, taking the whole of your railways in the Union?—The larger portion.

2318. What portion is worked upon, say, the electric train staff system?—I should say 80 per cent.

2319. You do not regard it as necessary for these newer lines?—No, not with one train per day, or three trains per week in each direction.

2320. I understand you are renewing your permanent way considerably for the purpose of meeting the increased weight of locomotives and rolling stock?—Yes.

2321. With an 80-lb. rail?—Yes.

2322. Is that the heaviest you use?—No, we have a short section of about 10 miles on the Wynberg line laid with 100-lb. rails, but 80 lb. is the standard on the main lines.

2323. Is it a flanged rail?—Yes.

2324. In regard to sleepers, are you growing your own to any extent?—Yes, we have large forests. In two years the Administration hopes to benefit by sleepers from our own forests. We obtain about 300,000 sleepers from the Knysna Forest, which is a Government forest. The Administration spends at the rate of 25,000*l.* per annum in tree planting for sleeper purposes.

2325. And do you anticipate great economies in future from this?—Yes. The price of sleepers is increasing at such a rate that the Administration anticipates the necessity of purchasing steel sleepers to some extent, but for our heavy main lines and particularly the curved portions we prefer a hard wood sleeper track.

2326. Do you consider that a great economy is possible in future by growing your own wood for sleepers?—Yes, I do.

2327. What do imported sleepers cost?—6*s.* 9*d.*, 6*s.* 10*d.*, and 6*s.* 11*d.*

2328. Have you formed any estimate as to what you can produce home-grown sleepers for?—No. It is rather early to take figures as to the cost of obtaining sleepers from our own plantations, but we require for maintenance purposes about 500,000 sleepers per annum.

2329. What is the average life of steel rails in this country?—Thirty years. In busy sections we may only have a rail last eight months, but thirty years is the general average. Certain lines vary from one year to three years, on the worst parts, where the traffic is heavy. Many sections, such as the lower part of the Natal line, have to be renewed every eighteen months.

2330. But the rails have a longer life before them on the branch lines?—Yes.

2331. Is the renewal of lines operating very heavily at the present time? Have the renewals been properly carried out in the past?—Yes.

2332. You have no undue burden upon you now in regard to renewals?—Since Union it has been heavy, because we have been practically compelled through increased traffic to lay the heavier rail on the main lines, and the endeavour has been to make the main lines a standard of 80 lbs.

2333. Does the strengthening of the road entail heavy expenditure?—Yes.

2334. You give a statement of the amount of rolling stock existing at the close of 1913:—Locomotives, 1,458; coaching stock, 2,472; wagon stock, 25,009, and you say there has been a steady increase in traffic since Union, necessitating the purchase of rolling stock in very large quantities, in fact since Union you have had a big increase in business, especially in tonnage?—Yes 4½ million tons increase.

2335. Is most of your additional rolling stock imported?—Yes.

2336. I suppose you do all the rebuilding?—Yes, we do that, and in future, I think, we shall be able to build about 85 passenger coaches and 750 goods wagons per annum in our own shops.

2337. Are you largely increasing the carrying capacity of your wagons?—Yes.

2338. What are the largest wagons you use?—50 tons.

2339. For the conveyance of what?—Principally coal.

2340. Have you many of those?—We have 50 in working at present and 200 on order.

2341. Can you get full loads for those wagons?—Yes, but I do not propose to urge the Administration to buy any more of those until I see the effect of the 200.

2342. Do you get loads both ways for those large wagons?—No, we cannot in Natal, we can partially in Delagoa Bay. I propose to use the large truck on the Natal line between the coal fields and the Point (Durban).

2343. Are you pretty well off with wagons to meet the requirements of the traffic?—Yes, we have increased our efficiency lately in the use of the wagons. I find that we do not get the use that we should get from our wagons. We have enough to cope with all requirements at the present time, but we have large orders due to arrive. In regard to shipping traffic we experience what other countries do, viz., that the coal is loaded as quickly as possible at the mines and sent off to the docks at which point it is shipped, but if the coal is not sold or the ships do not arrive, coal is left in the trucks. At Durban there is a coal bin with a capacity of 10,000 tons, but the Natal coal is very easily broken and we do not press the owners to place

the coal in the bins unless we are absolutely hard pressed; so that we usually have in Durban coal in trucks awaiting shipment to the extent of about 15,000 tons per day.

2344. Does that bin belong to the Administration?—Yes.

2345. Do you charge demurrage on the trucks?—No.

2346. Do you suffer much from the detention of wagons at the country stations?—Not much.

2347. On the whole you get a fair return from your rolling stock?—Yes.

2348. You say in your memorandum that the factor of the time which trains occupy in sections is now a very important consideration. I do not quite understand what you mean. Do you have lines so busy that the sections are too long?—Yes, some sections.

2349. That can be only on the busiest sections of the line?—Yes.

2350. That is why they are worked on the block system?—Yes, and the Tyers staff.

2351. Do the short sections cause much delay?—At present they do.

2352. What distances are your sections?—In southern Natal 3½ miles—our average section is 5 miles—this we vary from 7 to 15 miles and, in exceptional cases, from 15 even to 40 miles.

2353. You next deal with the question of staff and you give the total figures as 62,666, of which there are 32,356 Europeans and 30,310 natives, Indians and coloured persons?—Yes.

2354. The wages total 6,500,000*l.*?—Yes.

2355. Can you say how much is paid to natives?—I can make a calculation, but I would not like to state a definite figure off-hand. It is approximately 700,000*l.*

2356. Do all the coloured men occupy the lower positions?—They only do manual labour.

2357. Have you any coloured drivers, firemen, or signalmen?—No.

2358. Are there many men in temporary employment?—Only about 3,000 men in temporary employment on the railway.

2359. Does that include the number of men engaged on construction work as well as working the line?—Yes.

2360. Are the lines constructed by the Administration or by the outside contractors?—We have had one or two lines constructed by contract.

2361. How many would be engaged in working the railway?—Say about 31,000. There are about 617 whites and 1,080 natives on construction works. I should also make it quite clear that although construction is done departmentally many of the smaller sections are let out to contract.

2362. I was rather struck with the figure 6,500,000*l.* paid in salaries and wages, because your total expenses are 8,964,000*l.* and, therefore, the wages represent 80 per cent. of the total. It shows an enormous proportion of the total expenditure paid in wages?—Included in the 6,500,000*l.* is wages that are paid for new works and construction that are charged to capital account. Only a portion of 6,500,000*l.* is charged to Open Lines. You will find in my statement the figure of working expenses per cent. of earnings, which is 72·4 per cent., but if you deduct the cost in connection with relaying and depreciation the figure works out at 61 per cent., and if, again, you allow for the reduction on railway rates, then the percentage would be 55 per cent., which is the same figure as it was in 1909. Then another item which probably should be considered in connection with the profits of the railway and which has disturbed seriously our position is the fact that we have surrendered since Union 1,336,500*l.* in revenue by rate reductions; interest contributed to the Government on the 13,000,000*l.* of capital derived from revenue before Union representing a payment annually of 455,000*l.*; increases paid to staff represent 900,000*l.*, interest on capital expenditure since Union 128,000*l.*, increased contribution to depreciation 500,000*l.*, loss on opening new lines 300,000*l.* contribution to deficiency in pension funds 50,000*l.* per annum, and increased working expenditure due principally to increased traffic 680,000*l.*, altogether making a total of over 4½ millions, from which we must deduct the decreases in contributions for betterment rates and revenue from additional traffic.

2363. You have done a great deal more work for less money?—Yes.

2364. But the fact remains that you have spent a very large amount in wages?—Yes, our wages are, I think, the highest in the world.

2365. In regard to the conditions of employment for the staff, we need not go into that as you have handed in your printed regulations and conditions?—Yes.

2366. You say that the entrants into service are compelled to become members of the superannuation and sick funds?—Yes.

2367. Does that mean that all the staff belong to both funds?—Yes, all new entrants who are on the permanent staff.

2368. Does the sick fund apply to the clerks?—Yes.

2369. And the superannuation fund?—It applies to all the permanent staff.

2370. I suppose the Government guarantees it?—They contribute on the basis of £ for £ by members.

2371. Is it governed by actuarial requirements?—It is subjected to an actuarial examination every five years.

2372. And if the actuaries discover that it is not sound, what happens?—The contributions from the staff and the administration would have to be adjusted, but the total cost of administering the funds is borne by the Administration. That represents roughly from 5,000*l.* to 10,000*l.* per annum.

2373. In regard to stores—the total quantity in hand on the 31st December 1912 was 1¾ millions, roughly, and 4,630,000*l.* worth purchased during the year; the total quantity of coal purchased was 1,675,128 tons at an average cost of 4*s.* 11½*d.* a ton at the pit head?—Yes.

2374. Is it carried free on rails?—Yes.

2375. Do you use any imported coal?—No.

2376. Coal is imported, I understand?—Yes, but not by the railway.

2377. For what purpose is it imported?—For shipping, and a little is imported into Cape Town. The recent importations have been occasioned by the strike.

2378. That is a great advantage you have in this country, such cheap coal, and it is an important factor?—Yes.

2379. Is it good steam coal?—Yes.

2380. How does it compare with South Wales coal?—Natal coal is almost equal to South Wales coal and Transvaal coal is about 12 per cent. lower in value than Natal.

2381. The entire control of the railways is in the hands of the General Manager, who has three Assistant General Managers controlling separate systems?—Yes.

2382. Are they in charge of everything and everybody in those districts?—Yes.

2383. Including the district engineers?—Yes.

2384. Then you divide the railway into three branches—technical, commercial, and operative?—Yes.

2385. That is rather on the American system?—Yes.

2386. Is that the system adopted since Union?—No, in the Transvaal and the Free State it was adopted prior to the Union.

2387. Does it work well?—Very satisfactorily.

2388. Does the operating department include the controlling of the locomotive running?—Yes.

2389. Then the engineers otherwise are simply mechanical engineers?—Yes. The advantage of that is that you have only one office at any of the depôts and you have only one officer, whether he be the Assistant General Manager or the Divisional Superin-

tendent. There is only one office, and you avoid unnecessary correspondence between the different subordinate officers.

2390. I think your last published report deals with the year 1912?—Yes.

2391. But these figures you have produced now are the 1913 figures?—Yes.

2392. The gross earnings appear to be 12,388,000*l.*?—Yes.

2393. And the gross expenditure 8,964,000*l.*?—Yes.

2394. The net earnings being 3,424,000*l.*, which represents 4·2*l.* per cent. on the capital?—Yes.

2395. And you have only had to pay 3½ per cent. and the balance has been available for other purposes?—Yes.

2396–7. That is the principle you are now working under?—Yes. I do not know whether it would be of interest to the Commission to give you a classification of the earnings?

2398. Yes. I have a note here that your passenger receipts are only 20 per cent. of the gross earnings?—Yes. Passengers represent 3,377,243*l.*, or roughly 27 per cent. Parcels, 361,017*l.*, or 3 per cent. Goods, 6,044,613*l.*, or 49 per cent. Coal, 1,890,799*l.*, or 15 per cent. Live stock, 379,287*l.*, or 3 per cent. Miscellaneous, 335,796*l.*, or 3 per cent.

2399. The live-stock traffic is small?—No, it is heavy considering the size of the population. The traffic represents in large stock for the year, 523,719 head of cattle, and in small stock, 2,669,266 head.

2400. Is it a growing trade?—Yes: of course, the rates are very low.

2401. What is the movement of it, generally speaking? Is it for exportation?—No, it is in the direction of Johannesburg and Cape Town for slaughter purposes generally, but we shall be exporting very soon—I think in a year or eighteen months.

2402. Is there any revenue received for carriage of mails?—Yes, we get a fixed sum from the Government.

2403. You give your earnings per mile at 1,550*l.*?—Yes.

2404. Which is quite good, but your gross expenditure is 72 per cent.?—Yes, but that includes a number of special items such as I have mentioned.

2405. And you have a note here to say that these figures do not include the result of working the subsidiary services such as catering?—No, there is a separate account for that; we do not treat it as a part of the general account of the railways.

2406. You do all the catering yourselves, I understand?—Yes, except the refreshment rooms in Natal.

2407. What other subsidiary services are there?—Cartage, bookstalls, and advertisements.

2408. You run your own bookstalls?—Yes, except in the smaller places.

2409. You make a comparison of the result of working for the year 1913 compared with 1909, which shows that the gross earnings have increased by 18·49 per cent., and the gross expenditure by 57·95 per cent. The gross earnings have increased, I see, by 18½ per cent. To what extent during that period has the mileage increased—open mileage?—By 338 miles per annum for the four years. The passenger traffic has increased by 15 millions, representing 53 per cent.; goods tonnage has increased by 4½ millions, representing 43 per cent., and the train mileage by 10½ millions.

2410. Does that mean that while your passenger traffic has increased so largely in numbers you have had a reduction in the passenger fares?—Yes.

2411. And also in the goods rates?—Yes.

2412. You make an explanation of that here?—Yes.

2413. Wages and salaries are 900,000*l.* per annum more than they were at Union?—Yes.

2414. Since Union came about, acting on the principle contained in the Act of Union, you have been making considerable reductions in the rates?—Yes.

2415. Every year?—We have not reduced this year to any extent.

2416. Did not the surplus revenue allow of it?—No, the increased depreciation and the increased interest charges and particularly the increased payments to the staff leave us rather on the wrong side of the ledger for the present.

2417. In 1912 your reductions amounted to something like three-quarters of a million?—Yes, 750,000*l.*

2418. In making those reductions what principles do you follow; has it been necessary since the union of the railways to make any great revision in the rates?—Yes, we had to assimilate the local rates in the Cape Province, which was the largest Province and had the largest mileage, and we had to adjust the Cape local rates and bring them into conformity with the classification in the other Colonies. That meant a surrender of revenue of 450,000*l.*

2419. You had to classify the rates in four Provinces on a similar basis?—Yes.

2420. Is it assimilated now?—Yes.

2421. Is it one classification?—Yes. It is one scale and one classification.

2422. Do you follow the English classification?—Yes, in principle. We have 16 classes, but some are very closely allied.

2423. Have you a different classification for through traffic from that for local traffic?—No, the classification is the same, but the rates are different

2424. Have you different rates for imported manufactured goods as compared with articles of local manufacture?—We have differential rates now.

2425. We were told yesterday by Mr. Solomon that there were preferential rates on local manufactures?—Yes, there are about 26 of such cases left.

2426. Have the others been eliminated?—Yes. But if we had attempted to deal with these we would have disturbed the industries of the country. The number of classes which received the benefit of preferential rates has been reduced from 150 to 26.

2427. Will those 26 remain?—They will disappear, but I do not think immediately.

2428. Is it a matter of gaining revenue?—No, the reason is that we regard the principle as a wrong one.

2429. As a railway administration, if you haul goods you should receive the proper payment for those services?—Yes.

2430. On the business principles laid down in the Act of Union?—Yes. Any protection that may be necessary for local industries must be done in some other way.

2431. That will gradually be adjusted?—Yes.

2432. Then in regard to the rate for mealies, I see in your report for 1912 you say the local rate for mealies has been reduced to a maximum of 20*s.*?—Yes.

2433. But one witness said yesterday that the rate for mealies was ten shillings—a flat rate?—Yes, for export maize.

2434. He said it applied internally?—No, it does not.

2435. But you have lower rates for export?—Yes, for short distances, but the maximum flat rate is ten shillings per ton.

2436. Has that done good?—Yes, I think it has stimulated the growing of mealies and assisted in the development of the country. Unfortunately, for two years in succession there has been drought, and the maize crops have not been as large as we expected. That will also be the case this year.

2437. Do you have specially low rates for export traffic?—Yes, for base ores, for coal, and for export fruit and for grain.

2438. Are those of recent adoption?—No: they were adopted before Union.

2439. On page 19 of your report you give a list of goods on which the rates were reduced in 1912. Have you found that has benefited the consumer? Has he reaped the benefit of that?—The consumer will derive the benefit of the reduced rates, because the rates recently reduced were on rough articles such as galvanised iron and timber, and heavy building

lines, and the object of that was that the people who used these materials would get the benefit. If we made a reduction on the high-priced articles, even foodstuffs, the probability is that the reduction would not reach the consumer immediately, and the Administration decided to make it on the articles which were generally used in the country for industrial purposes.

2440. You have got here, cement, paraffin oil, agricultural machinery, galvanised iron, plain timber, fencing material?—Yes, all necessary for the development of a young country.

2441. Those are the principal items to which reductions have been applied?—Yes. The livestock rates were also reduced by 30,000*l*.

2442. The total tonnage for 1913, you say, is the highest on record?—Yes.

2443. Is all the tonnage calculated on the short ton of 2,000 lbs.?—Yes.

2444. Is that what you use in working the railways?—Yes. We use the long ton in connection with shipping.

2445. Then you append a statement showing the financial results for the year 1913 and for each year since Union, or rather since 1909. Next you speak of rates and fares, and you give a table of your rates and fares—first, second, and third class. Those seem very reasonable fares. Since Union has this scale been reduced?—We reduced the passenger fares immediately after Union 150,000*l*.

2446. Are any of the fares reduced below this scale?—Only the suburban fares, for traffic such as between Cape Town, Wynberg, and Muizenberg.

2447. Are three classes a suitable division of the passenger traffic in this country?—I do not think so.

2448. Do you favour two classes only?—Yes, and we shall ultimately, I think, approximate to it.

2449. I suppose on the score of economy?—Yes, because our distances are long and the grades heavy.

2450. You have another class, natives?—Yes, by certain trains.

2451. You would practically, even then, have three?—Yes, we have four at present. I propose that the second class should disappear.

2452. Do you look forward to further economies in that direction?—Yes, owing to the reduction of dead weight, and shorter and faster trains.

2453. Do you do anything for commercial travellers?—Yes, they travel on the mileage system. They take advantage of the system of coupons and obtain reduced rates on their luggage.

2454. Do you limit them to distance?—No, we give them as many miles as they like.

2455. You do not charge terminals on goods traffic?—Except in one or two cases.

2456. You do not include it in the rate?—In a few cases only.

2457. You say you have brought the charge down to ·187*d*. per ton per mile for small livestock?—Yes.

2458. Do you charge by weight?—No, per head.

2459. But you say per ton?—For the purposes of arriving at the tonnage, we convert the head of stock into dead weight on a fixed basis.

2460. What distances do you carry livestock?—Roughly from five to seven hundred miles in one direction and about five hundred miles in the other.

2461. Then you refer to the harbours, and you say they are controlled by the General Manager in conjunction with the railways, the principal harbours being Table Bay, Algoa Bay, Buffalo Harbour, and Port Natal, and you give the total capital cost as 11,910,000*l*., and add that information in respect to the charges of the several harbours, together with the shipping traffic, are being furnished to the Commission?—Yes.

2462. You also refer to the revision of the harbour tariffs at present under consideration. Does that mean adopting uniform charges?—Yes, and with the object of making the harbours pay.

2463. You think there is at present some waste in the management of the harbours, or that the working of the railways and harbours overlaps?—No; the loss occurring is principally due to the heavy depreciation charges made since Union. The object is to establish uniform rates applicable to all Union harbours and make the revenue meet expenditure, the rate being calculated so as to make the harbours pay as a whole.

2464. Do you not contemplate something in the way of greater efficiency and economy in the method of working?—Yes; we propose to transfer the land portion of the harbours to the railways, so that invoicing and loading will be part of the railway work. At present it is administered by the Harbour Department.

2465. Do you mean to say that the shunting is done by the Harbours Department?—Yes, at present. It should be under the railways: in several cases we have two employees instead of one.

2466. Do you anticipate any substantial economy from that change?—I think so. We have made substantial economies already.

2467. That has engaged attention already?—Yes.

2468. Then, finally, you submit eight tables* and a number of books which contain practically everything regarding the railways and harbours and their working. I should like to draw attention to statement number 1. You have compared the years 1909, 1910, 1911, 1912, and 1913?—Yes.

2469. And comparing 1913 and 1909, the gross earnings show an increase of nearly two millions?—Yes.

2470. The gross expenditure over three millions?—Yes.

2471. And the passenger traffic has increased in numbers by 15 million passengers?—Yes.

2472. The tonnage has enormously increased—over 4½ millions?—Yes.

2473. The earnings per train mile, notwithstanding that great traffic, have decreased by 2·5*d*.?—Yes; that is due to the reduction of rates.

2474. And also by giving a better train service?—We have increased the train miles by about 10 millions.

2475. In other words, by about 54 per cent.?—That is so.

2476. Is that largely occasioned by great increase in the cheap and bulky traffic conveyed?—Yes. We have increased the passenger traffic 53 per cent. and the goods 43 per cent.

2477. Coal has figured largely in that?—Yes.

2478. And then the final statement is very interesting (number 8), in which you give the traffic carried during 1912 and 1913, classified according to specific commodities, and the first thing that strikes one there is the item of machinery—agricultural machinery and implements—which shows an increase of 43 per cent.?—Yes.

2479. Fencing material 21 per cent.?—Yes.

2480. Fertilisers 98 per cent. All this speaks well for agricultural development. Fruit, 10 per cent.; grain a very large increase. In timber you have a decrease in the imported article, and a large increase in the South African article?—Yes, we are using more South African timber.

2481. Is it in bunker traffic that the coal traffic has so largely developed?—Yes.

2482. Is the increase the result of a reduction of the rate?—Yes, largely the export of coal. We have reduced the rate 1*s*. a ton on coal exported.

2483. What is your maximum coal rate?—The coal rate for export purposes varies from ·29 to ·24 of a penny per ton mile from the mines to the nearest ports, between 200 and 300 miles distant.

2484. In shillings and pence?—4*s*. 11*d*. per short ton. We have reduced the rate on Transvaal coal to Cape Town for bunkering from 3*l*. to 13*s*.

2485. These figures show that while your railway business has largely developed your rates have been

* *See* Appendix H., p. 146.

consistently reduced, and with the exception of the year 1913 you have had a very large surplus to devote to the reduction of rates?—That is so.

2486. And you hope in a short space of time to have all the rates assimilated to a fair basis on the whole system?—Yes.

2487. And have all the preferential rates discontinued without exception?—Yes.

2488. **(Mr. Lorimer.)** I have only a few questions to ask, but I specially wish to be short. I understand your system of depreciation differs from the practice of the English railways. They, of course, have suspense accounts for special renewals, and general reserve funds, and they can draw on them for anything they like. As I understand it, yours is established on a different principle. I understand that what you do is this: You debit the revenue of each year with all expenditure incurred for ordinary wear and tear for maintenance of permanent way, stations, buildings, and so on, and for maintenance and repairs of rolling stock?—Yes, that is correct.

2489. But in addition to that you debit revenue and credit a betterment and depreciation fund with certain large sums which I understand are used to pay for special renewals or replacements, the cost of which might very well be a perfectly excessive charge against the revenue account of the year in which the expenditure was incurred. Is that right?—We have two special accounts. One is a Renewals Fund Account, and the other is a Betterment Fund Account. In addition to the contribution of 1,700,000*l.* to the Renewals Fund we contribute from revenue a sum of 100,000*l.* to Betterment Fund. The sum of 1,700,000*l.* is arrived at on a percentage basis on the life of rails, buildings, bridges, signals, and so on, and with regard to rolling stock it is calculated at the rate of 5 per cent. on locomotives, and 4 per cent. on coaching stock, and 4 per cent. on goods stock, and 6⅔ on machinery.

2490. Is that statutory? Do you require to adhere to it?—No, this is not statutory. This is a schedule prepared by the Administration and approved by the Railway Board, and we are working to that at present.

2491. But it is always open to you to revise it?—Yes, and, of course, the items appear in the Estimates and are criticised by Parliament annually.

2492. I have a Betterment Fund here and the total deducted from revenue on the 31st December 1912 was 4,461,997*l.*, out of which you appear to have paid for capital expenditure 3,791,000*l.*, leaving to the credit of the fund 670,000*l.*?—Yes.

2493. For the charges on permanent way and rolling stock for renewals how much would the charge average?—The Betterment Fund is an arbitrary fund. We only pay in what we can afford. For the last year we paid out about 800,000*l.* for rolling stock, and this next year we shall pay out probably about 650,000*l.*

2494. How long has this fund been in existence?—It has been in existence in the Transvaal and Free State since 1905, and since the union of the Provinces it has been made applicable throughout.

2495. How much double line have you?—132 miles.

2496. You have a most appalling list of gradients. Do you know what is the percentage of coast lines with these heavy gradients to the inland lines with moderate gradients?—No, I think I could work it out if you wish.*

2497. Necessarily, with gradients like these, you require very powerful locomotives?—Yes.

2498. And I think I may say that there is nothing in the world to equal South African locomotives on the 3 feet 6 inches line?—Yes, that is so.

2499. And I see that the tractive power of every new lot is greater than the preceding lot?—Yes.

2500. Do these locomotives dispense with double heading?—Yes, mainly, but not entirely. In the last ten years we have increased our load practically from 300 tons in some cases to 1,600 tons, and we have been up as high as 2,000 tons.

2501. On what gradient?—1 in 60.

2502. At what speed can you run on that?—About 10 miles an hour.

2503. In regard to working expenses in relation to revenue I see your explanations of this increase. There is an alarming increase from 54 to 72 per cent. in working expenses, but there is more than the reduction in revenue to account for that increase. I take your figures of revenue for 1913 and add 1½ millions to it as approximately what you surrendered, and I find that the working expenses were over 65 per cent.?—Yes.

2504. Your figure is 72, but even with the old rates of revenue the expenses were 65 per cent. I suppose that is on account of the high rate of wages?—Not altogether. If you take our full reduction in rates, the additional cost charged to working by increased wages and renewals and the additional interest charges and additional depreciation paid, you will find that the working expenditure will approximate to 55 per cent., the same as it was in 1909.

2505. I suppose wages are rising all the time?—Yes.

2506. Now suppose you reach a point when you begin to encroach upon the interest, could you take anything out of your betterment fund? You can simply reduce it, I suppose. I mean, suppose your working expenses increased at such a ratio that they encroached on your ability to pay the full interest and you had a considerable balance at the credit of your betterment fund, could you use that?—With the consent of Parliament.

2507. Has the capital which went to pay for the building of the railways been raised at something like 3½ per cent.?—Yes, we pay 3½.

2508. Do the Government pay 3½?—They raised it at a little more than that on an average, but recently the rate of interest has been higher.

2509. Is there much of that capital on terminable loans?—Yes.

2510. So that as these expire it is possible you will have to pay more?—Yes, that is to say, the Government will pay more.

2511. I see you say that coal costs 4*s.* 11½*d.* a ton?—Yes, on an average.

2512. That is free of railway carriage?—Yes.

2513. That raises a question. You carry an enormous amount of railway material free?—Yes, coal for loco. requirements. Material for construction purposes we charge ¼*d.* per ton per mile.

2514. You have in one of these tables the tonnage hauled free, which is equal to 16 per cent. of the whole?—Yes, 2,313,167 tons.

2515. Sixteen per cent. of the whole?—Yes.

2516. And you do that year by year?—Yes.

2517. And I suppose you would very well afford to pay carriage on coal if you got credit for the haulage of 2,313,167 tons?—That would be the departmental charge.

2518. So it hardly gives you all the credit that is due?—No.

2519. There is only one other table that I want you to speak about, and I congratulate you on it, that is the table of train mileage. You have a very much larger percentage of productive to unproductive mileage than is the case with the English railways?—Yes, our unproductive mileage is only 22 per cent. of the total.

2520. I do not refer to branch lines, but to the difference between train mileage and engine mileage. How do you explain it? Is it the longer hauls?—Yes.

2521. And you have very little double heading?—That is so.

2522. And not very much empty running?—No.

* The witness subsequently supplied the following information:—The percentage of coast lines with heavy gradients to the total of all lines is approximately 40 per cent., that is to say, there are roughly 3 miles of inland lines with moderate grades to every 2 miles of coastal lines with heavy gradients.

2523. I think these figures are extremely satisfactory.

2523*a*. **(Mr. Campbell.)** What is the reason for charging ½*d*. a ton on the carriage of coal to Durban and one-sixth of a penny per ton to Cape Town? Is that a matter of policy on the part of the railways?—The principle is exactly the same as before Union. Before Union in Natal they had two rates, one for coal for local consumpton and the other for coal for bunker and export purposes. The rate for coal for local consumption approximated to ½*d*. per ton per mile and the rate on coal for shipment varied from ·265 to ·296 of a penny per short ton per mile to the Point. The principle has been continued and we charge on a sliding scale throughout, so that 240 miles represent 6*s*. 8*d*. per ton of 2,240 lbs. for bunkering, and 5*s*. 6½*d*. for export. Then the reason for the ·16 rate at Cape Town is that the rate was fixed to secure the traffic.

2524. Is the cheap rate to Cape Town intended to give facilities for supplying consumers with coal?—Yes. In 1909, we bunkered at Cape Town, for instance, 58,000 tons, and in 1912 it rose to 355,516 tons, and for last year it was 282,622 tons. Now, formerly, most of that coal came from other parts of the world. It is now almost entirely supplied from the Transvaal and Natal.

2525. **(Sir Alfred Bateman.)** About seven years ago the Shipping Rings Commission had some evidence before them that the cost of living in the Transvaal was increased more by the rates on the railways than by the freights of the shipping companies?—Yes.

2526. Is that true now?—I do not think so.

2527. Can you prove it is not?—I think the cost of living is made high in this country by the wages paid to the men. I think the cost of living is more affected by the higher rates of pay obtained by men for their work.

2528. Can you give me an idea what reductions you have made?—We have made reductions in rates of 1,336,000*l*. per annum.

2529. Would it be a reduction of 50 per cent.?—No.

2530. Twenty-five per cent., then?—No, it would be very difficult to say what it would represent. You might take it in this way. The total revenue is over 12 millions and the total reduction represents 1,336,000*l*. per annum. So it equals a little over one-twelfth.

2531. That is to say, 8 or 9 per cent.?—Yes.

2532. Have you done away with all these carefully regulated divisions of traffic imports?—No, they still exist.

2533. So as to give Durban 30 per cent., and so on?—Yes. It is regulated by an agreement taken over at the date of Union, and it will be in operation for another five years.

2534. That is rather embarrassing to you in calculating your rates?—Yes. But in five years the matter will be reviewed.

2535. Is that in connection with the Mozambique Government as well?—Yes.

2536. You will have to wait that time to get free unless you get free by the consent of all?—Yes.

2537. The livestock traffic for export is free, is it not?—Of Customs, yes.

2538. You have livestock in these tables taken separately from your revenue. We know that railway coal and stores are conveyed free. Is livestock free?—No.

2539. This revenue of 388,000*l*. is actually paid?—Yes.

2540. It is a little ambiguous?—Yes, the introductory paragraph is misleading.

2541. Livestock, if I remember, pays a very low freight?—Yes.

2542. **(Sir Jan Langerman.)** We have now had Union about four years?—Yes.

2543. How long is it since you reduced the rates from the Transvaal on coal?—In 1912. We reduced the rates on coal by 200,000*l*. per annum.

2544. What is the immediate reason?—To afford a cheaper rate on Transvaal coal to the goldfields and to the ports for shipment.

2545. What is the reason, really? Was it very expensive bunkering here at that time?—Only English and Natal coals were used at that time, and we reduced the rate to 15*s*. 3*d*. in the Cape, and we found that in 1912 the rate for coal—that is Natal coal—was 23*s*., but in 1913 it was increased to 26*s*. at Cape Town.

2546. Is that because there was no competition from the Transvaal?—Yes, and the coal interests were in the hands of one combination.

2547. That practically created a monopoly?—They had something like a monopoly.

2548. The Government intervened and broke that up?—Yes.

2549. And that is the practical result?—Yes.

2550. I see the Government does not charge the railways with the cost of raising the money. Is that fixed by the Act?—Yes. We pay to the Government 3½ per cent.

2551. Do you not think it should be a legitimate charge against the railways?—Well, it cuts both ways. If they raise money at less than 3½ per cent. we still have to pay 3½ per cent.

2552. Now, in regard to the mileage, the new line costs 3,400*l*. per mile?—Yes.

2553. How is it that the cost of our railways stands at 10,000*l*. a mile?—Because many of the sections cost 16,000*l*. a mile. Some sections of the Delagoa Bay line cost 15,000*l*., and some sections of the Natal line cost 16,000*l*., but the average cost of the whole works out at 10,000*l*.

2554. There are no accumulations for betterment or maintenance added to it?—No, that is the actual cost.

2555. **(Chairman.)** You attach great importance to the provision of cheap bunker coal at Cape Town and Durban?—Yes.

2556. Do you see any possibility of reducing the charges still further?—Not at present.

2557. When you get your gradients improved in Natal and the other improvements in rolling-stock, is it conceivable that you will be able to go still further in reduction of rates?—Yes.

2557A. In regard to Cape Town harbour, we went over the harbour the other day with the engineer, who pointed out a large programme for improvement for which a small portion has been provided with funds?—Yes.

2558. How soon do you hope to carry through the programme, or so much of it as will give a depth of 40 feet?—Two or three years.

2559. You intend to push on as rapidly as possible?—Yes.

2560. And the provision of a second basin, when?—If the trade indicates the necessity for further extension as we near the completion of the present works we will take the other into consideration. We shall be able to anticipate our business.

2561. But as far as the provision for ships of the largest tonnage and most modern type is concerned, we may take it that accommodation will be ready in two years?—Yes.

2562. Forty feet of depth and the length of 800 feet?—Yes.

2563. In regard to the improved facilities for bringing Natal coal to the coast, when these corrections of gradient and curve have been made, will that justify a further reduction of rates?—Well, the export coal rate is very low now. It is 4*s*. 11*d*. for Natal and 13*s*. at Cape Town per short ton.

2564. But your cost of haulage, I imagine, will be very largely reduced by these changes?—Yes.

2565. What can you tell us about the alternative line for coal in Natal. Is there any intention of putting it through?—There will be no necessity. We shall have practically a double line from Maritzburg to Durban.

2566. And that will give you all the capacity that you require?—Yes. It will increase the capacity of the line by more than 100 per cent., and not increase the working costs so far as station expenses are concerned.

2567. Are any large improvements in contemplation on the haul from Delagoa Bay to Johannesburg?—Only in a very preliminary stage at present. We have regraded the line from Komati Poort to Waterval Boven and obtained a grade of one in fifty, and on the western side of Waterval Boven there are certain other improvements in the preliminary stage.

2568. Is there any rack and pinion on that line?—No, we have a ruling grade of one in fifty from Komati Poort to Waterval Boven.

2569. In regard to electrification, have you any scheme in contemplation either for mountain sections or suburban sections?—We have about four schemes under consideration, one for the Cape Town to Wynberg section, one for the Cape Town to Sea Point section, another for the Randfontein to Springs section at Johannesburg, and one from Komati Poort to Waterval Boven, and I have also, in the report submitted to the Railway Board, urged that the question of electrifying the line between Durban and Maritzburg, and probably the whole of the Natal main line from Durban to Hatting Spruit, should be looked into, because these sections seem to me to be admirably suited for electrification.

2570. Can you form any idea of the cost of electrifying those sections?—Yes. But the figure is not very safe, because when the figures were taken some years ago the position was different. The cost of obtaining power is now much less, but the figures then given for the four sections were in the neighbourhood of 1,000,000*l.*

2571. Including the Natal section?—No. The reason why that has not been looked into is because it is a heavier problem. The coal is cheap there, the traffic heavier, the gradients are heavy, and electric power would be much easier and cheaper to use on a difficult line like that, because the maintenance charges would be reduced.

2572. If you have any figures on electrification, I should be glad if you would put them in?—I have some reports.*

2573. On the Natal section?—No. That is only a recommendation which I have made for the purpose of instituting an inquiry.

2574. Have you in force or in contemplation any special scheme for attracting tourist traffic from the Mother Country or elsewhere? Yes, we have circular tickets issued by the shipping companies or by Cook and Sons by which a passenger can travel over our railways and make arrangements before he leaves England.

Not reproduced.

2575. Is that traffic developing satisfactorily?—Yes, we hope to develop it much more.

2576. In your judgment, is the duration of the passage oversea a very considerable factor in retarding the development of this traffic?—I think the voyage itself will ultimately prove to enhance the attractions of the trip more than otherwise.

2577. Therefore, the longer the voyage the greater the attraction. One witness said that a reduction to 14 days would exercise a considerable attractive force?—I think that will come, but I do not think the tourists will be influenced by one or two days on probably a six months' journey.

2578. What can you tell the Commission in regard to the development of the Messina District with your new line. Do you expect a heavy traffic at once?—Yes, of copper ore at once, and it will enable additional coal and copper mines to be opened. The coal is not of very good quality, but it may serve for mining purposes.

2579. Is there a large copper-field?—Yes.

2580. Will that extension pay when it is opened?—It is guaranteed by the Messina Company to the extent of 4½ per cent. for ten years.

2581. We have heard something in the evidence regarding the absence of trucks in Natal. Is that matter in process of rectification?—The remedy is their own. They have constantly 15,000 tons of coal under load and it has even been as high as 21,000 tons per day. But we have had a large increase of rolling stock and we are ordering more, and I expect no further difficulty in regard to truckage.

2582. What have you to say about bunkering facilities at Cape Town and Durban?—At Durban, we have made provision for an additional coaling plant, which, when completed, will enable us to bunker at the increased rate of 400 tons per hour, and at Cape Town, I hope, with additional mechanical appliances, to reduce the cost by nearly one-half.

2583. From what to what?—From 2*s.* to 1*s.*

2584. Are there any complaints as to delay in coaling?—No. I think it has been rather the opposite. We have received a good many letters of commendation for prompt bunkering.

2585. **(Mr. Tatlow.)** Do you expect to long enjoy the advantage of being charged only 3½ per cent. interest on your capital?—I hope so.

2586. Is it a matter about which there is a difference of opinion?—I have a difference of opinion about the interest we pay. I think we pay 450,000*l.* per annum too much.

2587. But in regard to the rate of interest?—I think our loans will probably be raised in the neighbourhood of 3½ per cent. We have done it before and I do not see why we should not do it again.

Port Elizabeth, Friday, 13th March 1914.

Mr. William Edwin Clift, Port Captain and Marine Superintendent, and Mr. G. Holford Walker, Harbour Engineer, called and examined.

2588. **(Chairman.)** Mr. Clift, you have been good enough to give us details of your roadstead. Port Elizabeth is a roadstead in a large partly-protected bay?—Yes.

2589. What depth of water do you get within a moderate distance from the shore?—The best working anchorage is within 6½ fathoms, which is about half a mile from the jetty. You will see two lines on the chart where the mail boat anchors.

2590. You get there a shelving beach?—Yes.

2591. It runs from 6 fathoms to 7 or 8 fathoms?—Yes, anything outside 7 fathoms is out of the anchorage.

2592. Is it a good anchorage?—Excellent holding ground.

2593. What storms do you fear?—South-east gales, but they come very rarely, only about once every ten to fifteen years. Our ordinary south-east winds are nothing to worry about, but they hamper the work.

2594. Do these vessels often have to move away and put out to sea?—Very rarely. If a vessel feels that it is uncomfortably close it will move out a little further, but that is very seldom necessary.

2595. Is your work interrupted by bad weather many days in the year?—No, the complete stoppage

of work on working days does not average three a year. There are days on which we only work up to about 4 o'clock perhaps, but there is very rarely a day that we do not get a fair tonnage.

2596. Is there any considerable damage to goods owing to lighterage in heavy weather?—Only the damage due to double handling. We have an extra handling here.

2597. What is the cost of that extra handling compared with the cost of working cargo to the quay direct?—We have the cost of the lighterage, that is, 1*s.* 6*d.* a ton.

2598. That is the net additional cost?—Then we would have the cost of taking it on the quay. The men who are now on the lighters would be on the quay; that is, the men now in the lighters to handle the cargo on to the quay. The boating company used to get half a crown for that work, but the Government has bought the company out. Our lighterage cost is now roughly 1*s.* 5*d.* a ton, as far as I can ascertain.

2599. On all cargo?—That is rough and fine.

2599*a*. That is the only amount of extra cost involved through the absence of a quay, is it not?—Yes.

2600. What schemes are there for improvement?—There is a scheme for enclosing the port with a breakwater from the end of the Dom Pedro jetty. I have drawn a line on the chart which you have. We propose as a first instalment to add 1,000 to 1,500 feet of breakwater. That will go out to 6 fathoms. The idea is to have 130 acres of open water inside the breakwater in 6½ fathoms; that is, 39 to 40 feet, and then bring it round to an angle in the north, sheltering the present jetties, and making them workable. We could utilise them, and then go in for a scheme of improvement inside the harbour, after the breakwater was formed.

2601. What is the estimated cost of the breakwater?—1,500,000*l.*

2602. Has that scheme been submitted to the Government?—It has been before the Railway Board. I do not know that it has been submitted to the House.

2603. Has it been approved by the Railway Board?—I cannot say.

2604. Even if you had calm water along your present jetties, you would still have to lighter, owing to the shallowness of the water?—Yes, with many vessels, but not with all. I shall have a sailing ship along the jetty on Monday, drawing 20 feet 10 inches. That is the maximum. We have 21 feet at low water, but we have to allow for the swell.

2605. Are there any alternative schemes of development?—There was an alternative scheme for opening the Zwaartkops River, some 6 or 7 miles to the north, but I do not think that has been considered.

2606. That is outside Port Elizabeth?—No, it is in the bay.

2607. Has that scheme been abandoned in favour of the one you mentioned?—I do not know that it has been abandoned. Surveys have been made and soundings taken.

2608. What probability is there of either one or other of these schemes being put through?—I am afraid I could not say. It is for the Government to decide.

2609. What can you tell us regarding the development of the tonnage landed and shipped?—During the last five years there has been a practically 75 per cent. increase, from 440,000 tons to 710,000 tons.

2610. Can you at all distinguish between the local traffic and what is called the competitive areas traffic, that is, Johannesburg traffic?—No.

2611. Can you say what proportion is due to Johannesburg and what proportion to the other districts?—I could not tell you. That would come better from the Port Manager. I think the increase has been general right through. I do not think there has been so much on the Johannesburg traffic. I think it has been more on the local and the rougher traffic for the north.

2612. Perhaps you could see the Port Manager and ask him to send in a statement* on that point?—Yes, I can do so.

2613. Now, perhaps the Harbour Engineer would state anything further he may have to say regarding the proposed development schemes?—(**Mr. Holford Walker.**) Yes. The scheme under consideration at the present moment is one by Mr. Nicholson of Cape Town, and it is a modification of several other schemes that have been put forward. One of these schemes was first put forward by Messrs. Coode, Son, and Matthews. That meant constructing a breakwater, which would also be usable as wharfage, and a north breakwater, and a considerable amount of reclamation work inside, with solid masonry jetty. The whole proposal would involve a considerable amount of dredging. That scheme was estimated to cost rather more than 3,000,000*l.* Later on a scheme was put forward by a Mr. Methven of Natal. He suggested the construction of tidal docks at Zwaartkops River, about 6 miles from here, and that scheme and the one I have before mentioned were submitted to a commission of engineers in London, and they gave preference to Coode, Son, and Matthews's scheme, which they recommended. Later on, Mr. Methven had another opportunity of reporting, and he suggested an alternative scheme, which was a south breakwater pure and simple, with tidal docks at the north end of the town, which would have to be excavated on practically dry land. Mr. Nicholson reported on the matter later, and submitted his scheme, which is a south breakwater pure and simple, which shelters the bay from the south-east.

2614. That is a prolongation of the Dom Pedro jetty, I understand?—Practically, at an angle. And that, I believe, is estimated to cost about one and a half millions. The question of the provision of docks is in abeyance, but this breakwater will provide a sheltered anchorage, and give probably about 130 acres or so of water from six to six and a half fathoms, and perhaps 230 acres from five to six fathoms. That is the scheme under consideration at present, a prolongation of the Dom Pedro jetty forming a breakwater pure and simple.

2615. Suppose the scheme is carried through, what is the precise measure of benefit which you expect to derive as compared with present conditions?—Well, under present conditions, we are working in an open roadstead, exposed to the sea, and we have a highly-developed system of lighterage here which is carried on very well, but this lighterage will probably be done much cheaper.

2616. You save the cost of lighterage?—Not the whole cost.

2617. At present you handle 710,000 tons?—(**Mr. Clift.**) Yes.

2618. At 1*s.* 6*d.* that represents about 50,000*l.* a year?—Yes, and we would save a lot of double handling and wear and tear of cargo.

2619. Against that you have to set interest on the capital cost of your new harbour?—Yes.

2620. Which would be, say, five per cent. on one and a half millions, say, 75,000*l.* a year?—Yes.

2621. I assume that money is worth that in the Union, although you pay the Government less for it. At first sight that does not look like a good financial bargain?—We shall have more than two-thirds of the tonnage coming into the present

* The witness subsequently furnished the following statement:—

Tonnage of Cargo landed at Algoa Bay.

Year.	Sent in Transit.	Other.	Total.
1909 - -	115,325	199,675	315,000
1910 - -	174,453	265,815	440,268
1911 - -	184,467	301,721	486,188
1912 - -	233,536	297,423	530,959
1913 - -	260,359	314,908	575,267

jetties, and the cargo will be landed direct from ship so as to save all that double handling.

2622. The damage to cargo is, of course, difficult to estimate. The actual cost of lightering would appear to be now about 50,000*l.* a year?—That is about it. About 4,000*l.* a month. That is the wages of the crews, plus wear and tear.

2623. **(Mr. Sinclair.)** Have the harbour improvements been carried out with moneys advanced by the Government or is there a Harbour Trust?—I believe the money has been advanced by the Government. They advanced a certain sum, but I believe that a good deal of the money has come out of revenue. There is no Harbour Trust. **(Mr. Holford Walker.)** The control of the port was vested in the Harbour Board, and that was practically a Government trust.

2624. Is there any fixed return looked for on moneys advanced by the Government?—Yes, we pay interest on 1,477,000*l.* I do not know what the rate of interest is, but I think it works out at about 5 per cent.*

2625. Are the harbour dues fixed on a basis of producing the interest that you have to pay on the Government advances?—Yes, they have been adjusted several times owing to the profit that was being made or the money that was being lost. There is a big charge levied for depreciation, but the working of the port almost pays its way.

2626. Will further expenditure necessarily involve higher port dues?—There are no harbour dues here beyond the actual landing and shipping.

2627. The point in my mind is this: Further expenditure will involve payment by the trust of interest on the further amount advanced. Will the charges that will have to be made in order to provide that additional interest involve increased port charges?—No, I do not think so. The Government has been trying to establish uniform charges. I should explain that the harbours are now part of the Railway Administration, The Harbour Boards were abolished by Act of Parliament at the end of 1908.

2628. **(Mr. Lorimer.)** I see from the report of the Chamber of Commerce for 1913 that the tonnage handled here was 710,730 tons. How much of that paid lighterage?—575,261 tons were landed; 3,985 tons of ballast and 4,753 tons of bunker coal. In the above total 556,305 tons were landed and shipped in the roadstead. All that paid lighterage.

2629. So that you are saving by the new scheme in that respect about 40,000*l.*?—Yes, on the lighterage alone.

2630. You would want to expend a sum that would involve something like 60,000*l.* of interest. I am thinking of the 1½ millions at 4 per cent.?—Yes.

2631. And two-thirds of that you would get by the saving in lighterage?—Yes, alone.

2632. Is there any saving in addition to that in double handling?—Yes, and in wear and tear of cargo.

2633. Can you say whether there is any loss of traffic at this port on account of the absence of such facilities as you now desire to have?—I think we lose the bunkering of vessels. We handle the cargo so quickly that I think vessels favour us as a port. We have no port charges and the lighterage is the only cost.

2634. You have no port dues?—No.

2635. And the additional cargo you get would pay for those also?—Yes.

2636-7. The fact remains that your scheme would cost 60,000*l.* a year, and you can only make that up by additional traffic?—Yes.

2638. **(Mr. Bowring.)** What rise and fall of tide have you here?—**(Mr Clift.)** 4 to 6 feet mean; 5 feet at springs and 2 feet 6 inches at neaps.

2639. In regard to bunkering, I understand you could do a good deal if you had better facilities. Where would the coal come from?—Natal or the Transvaal. Geographically we are nearer to Australia than Durban is. A ship would save 300 miles by calling here instead of at Durban. There is the cost of steaming and the loss of time.

2640. Are you nearer the Transvaal coalfields than Cape Town?—Yes, by about 300 miles. I could not say with certainty.

2641. **(Sir Alfred Bateman.)** I suppose you would have more jetty accommodation for that 1½ millions?—I do not think so. I think that would be only the cost of the breakwater, but it would give us the use of the present jetty accommodation for a certain number of ships.

2642. You could make more use of it?—Yes.

2643. Do you think you could get more trade by it?—Yes, I think so.

2644. The financial part of your scheme, I understand, you are not interested in. If the Government adopts the scheme it is responsible?—Yes, under the new uniform tariff.

2645. If you can persuade them to do this thing they are responsible?—Yes, for the interest.

2646. I notice that your coal landed here has come down to practically nothing. It was only 6,000 tons last year?—Yes, because our coal now comes from the Transvaal by rail instead of by sea.

2647. And there was also 76,000 tons of railway material last year. Is that only temporary?—Yes, it is temporary until the railway system is completed; that is, they are relaying the lines with 80-lb. rails in place of the 60-lb. at present in use.

2648. Would it improve the prosperity of the town if you had better facilities for landing people?—Yes, more people would land and spend money in the town.

2649. Is the subsoil of the harbour favourable for these works?—Yes. **(Mr. Holford Walker.)** Most of the area is covered with a thickness of sand varying from nothing to perhaps 8 or 10 feet, and then you have a stratum of indurated sand or limestone, and beneath that you have a softer bed, and that varies in degrees of hardness until you get down to the rock, but it would all be amenable to dredging.

2650. On the whole it is a favourable condition?—I think so.

2651. And you are anxious to get all this carried out so as to keep Port Elizabeth abreast of the other ports?—**(Mr. Clift.)** There is another reason. There is no harbour between Cape Town and Durban, a distance of 800 miles, you might say, to which a vessel could run for absolute safety in distress. This place is absolutely midway between Cape Town and Durban.

2652. Do you think you could do much bunkering?—I think we could if the vessels could do it in smooth water.

2653. **(Mr. Campbell.)** Did I understand you to say that if you had a harbour such as you desire you would get further trade?—I think the trade would increase if the port was closed in.

2654. Do you anticipate getting it from other ports?—I think it would principally be the bunkering.

2655. In place of Durban?—Yes.

2656. Do the boats trading from Cape Town discriminate as to freights between any of the ports?—I have nothing to do with the freight question.

2657. They do not discriminate against Port Elizabeth?—No, I do not think there is any discrimination as regards freight.

2658. Do you know of any ports against which they do discriminate?—No.

2659. Is there any risk in entering or leaving the port? I suppose the insurance companies do not make any extra charge?—I do not think there is any extra charge.

* *Note by Witness.*—Port Elizabeth Harbour pays a fixed rate of 3½ per cent. on its debt of 1,477,000*l.*

On the proposed breakwater there would probably be a depreciation charge of 1 per cent. on the estimated cost of 1,500,000*l.*, making a total of 4½ per cent.

East London, Monday, 16th March 1914.

Mr. H. A. Lerchen, Partner in the firm of H. Knorr and Company, Steamship Agents, &c., East London, called and examined.

2660. **(Chairman.)** I think you are a partner in the firm of Knorr and Company, steamship agents, and a director of the East London Coal Company?—Yes.

The following statement was submitted by the witness :—

Coal Bunkering at East London.

I am a partner of the firm H. Knorr and Company, steamship agents and commission merchants, and also a director of the East London Coaling Company.

It is only the last year or two that East London has come into prominence through supplying ocean-going steamers with bunkering coals. It, of course, stands to reason that owing to being so close to Durban, which is only 240 miles from East London, the bunkering of vessels is only done under certain circumstances, which may be summed up as follows:—

(1) Steamers which discharge cargo at East London on their way to Australia, not calling at Durban.
(2) Steamers making East London their last port of call, returning from here to Europe.
(3) Steamers on their way to Durban getting short of coal supplies.
(4) Any steamers calling at East London as their nearest port to replenish their coal supplies.

For years past Cape Town have been increasing their turnover in bunkering coal, and at the present time fairly large numbers of vessels call there for bunkering purposes. The Government also assisted Cape Town materially by agreeing to do the work of bunkering, including trimming in the ship's hold, at 2*s.* per long ton, and it was only about a year ago that the same facility was also accorded to East London. There are various firms who compete in the bunkering business in East London.

The coal used is principally Natal, but Transvaal coal also comes down.

Owing to specially low rates of carriage a fair quantity of Transvaal and Natal coal now comes to the port here overland. The rate from Witbank, which is almost 1,000 miles from East London, is 14*s.* 4*d.* per ton, while from the Natal mines the rate is 14*s.* 1*d.* Off this the Government allows a rebate of 1*s.* per ton if the coal is used for bunkering. Thus coal can be brought here overland at a distance of close on 1,000 miles at a cheaper price than by sea from Durban, which is only a distance of 240 miles.

The bunkering at East London is done partly from two sides, viz., coal hulks, which are the property of my firm, are placed on one side of the steamer, while coal is also discharged from trucks on the other side from the shore; other coal contractors who do not own hulks do the bunkering from the shore side only. The capacity is about 700 tons per day. The contract prices are about 26*s.* per long ton bunkered and trimmed into the ship.

The coal brought here during 1912 over sea was 19,000 tons, and for 1913 14,000 tons; the lesser amount for 1913 is accounted for by a large quantity of coal being brought overland. In 1912 500 tons for bunkers were supplied, and in 1913 375 tons. While these figures are small they nevertheless show that bunkering can be done here as well as in Cape Town. There are always fair quantities of coal kept in stock, and this can be supplied at short notice.

During last year my Company bunkered several of the Union-Castle large intermediate steamers with very satisfactory results.

It is to be hoped that when the harbour improvements and the outer works are finished, and when steamers of practically any draught can enter our harbour, that then the bunkering will assume considerably larger proportions than at present.

2661. Do you see a possibility of developing the bunkering business here outside of coastal vessels? Do you think you can compete with Natal and Cape Town?—Not with Natal, because we use Natal coal, but I think we ought to have some of the business as far as Cape Town is concerned. This may be the last port of call for a vessel on the way to Australia, and other vessels may find themselves short of coal on arrival here. We ought to be in a position to supply those boats.

2662. Do you contemplate the possibility of Australian liners calling here instead of at Cape Town?—In regard to the very big ones which call at Cape Town at present there would be some difficulty in bunkering them here because they are too big to enter the river. But there are various steamers that call here with cargo and then leave for Australia, such as the German Australian Line, and other boats which finish their charter here, like the Clan boats, which go from here to Calcutta and often require bunkering. A lot of those vessels bunker at present at Cape Town.

2663. They bunker at Cape Town because the harbour facilities are better?—No, but Cape Town has been in the bunkering business longer than we have. About a year ago we started to bunker and we have bunkered various steamers here with satisfactory results and at a price no higher than Cape Town.

2664. What do you say about the railway rate from Witbank down to East London, are you satisfied with that?—It is certainly very low and I do not think it pays the Government, but that is another matter.

2665. Your coal from Natal costs you the same to bring from Natal, which is a shorter distance than from the Transvaal by rail?—Yes.

2666. What is the cost of bringing coal from Durban here?—About 7*s.* a long ton from Durban to East London, and the carriage from the mine to Durban is also about 6*s.* or 7*s.*

2667. So it practically comes to the same level, 14*s.*?—Yes, but it is always recognised that carriage by water ought to be cheaper than rail. You have a distance of about 1,000 miles by land, which is practically competing at the same rate for about one-third of the distance by sea, which does not seem to be a healthy state of affairs.

2668. That may be so, but there is the fact that you have your railway rate exceptionally low?—Yes.

2669. What do you say regarding the respective merits of Transvaal and Natal coal for bunkering purposes?—It is generally considered that the better class of Natal coal is superior to the Transvaal.

2670. To what extent?—I should say about 10 per cent.

2671. How does Natal coal compare to Welsh?—Opinions are very different, because practically every mine states that its coal is the best, and they have any amount of analyses to prove it, but I should think that the best Natal coal is below Welsh from 10 to 15 per cent.

2672. And Transvaal is about 10 per cent. below Natal?—Yes, it varies, of course. Some mines are better than others.

2673. **(Sir Rider Haggard.)** In regard to this bunkering, do you carry it out in the river or in the roadstead?—In the river.

2674. Then it is only ships that can get in the river that can bunker?—Yes. They could bunker outside, but it would be rather difficult owing to the lighterage.

2675. It is outside the question?—No, it is not absolutely impossible. In a case of absolute necessity it could be done.

2676. But practically?—Yes.

2677. Only ships that could come in could bunker?—Yes.

2678. That would not be very big ones?—We are bringing ships in to-day that draw 23·6 and 24 feet.

2679. Is it easy to get ships to come in drawing that amount of water?—No, when we do we have to watch the tide and the conditions have to be favourable. They would not be brought in if there were any risks. They could only be brought in if conditions were favourable.

2680. **(Mr. Campbell.)** Is there any discrimination in rates of freight on vessels calling at Cape Town and trading in this direction in regard to this port? I mean, does East London get a proportionally higher freight rate than Durban?—Of course, the freight rates vary On the whole East London pays more than Cape Town and on a good many lines we pay the same as Durban.

2681. Why is that?—The rates are arranged on the amount of traffic going northwards. Railway rates and freights and various expenses are taken into consideration to control the amount of traffic going into the competitive area.

2682. The ship freight is arranged with regard to the railway?—Yes.

2683. Do the sea freights fall in with it?—The railway rates have been fixed more or less on the present freights.

2684. The railway rates are fixed in accordance with the shipping freights, is that so?—No, I would not say that, but the freights are taken into consideration. If the shipping freights were all going down it would mean a reorganisation of the railway rates.

2685. You say that East London pays a higher rate on certain classes of goods than Durban?—Yes, and on some classes it pays the same.

2686. You are speaking of boats from Cape Town coming here?—I am speaking of ordinary cargo.

2687. Why does East London pay those rates?—It is a complicated question. The lighterage question must be taken into consideration here. In former times no ship could come in the river here and the lighterage was included in the freight because it was paid by the steamer, and now, although most ships come into the river, lighterage is still included in the freight.

2688. There is still discrimination exercised, although the necessity has passed?—I would not say the absolute necessity, because some of the steamers still have to lighter. The majority come in.

2689. Do any boats visit this port that cannot get into the harbour?—Yes, the mail boats, for instance, could not come in.

2690. Has there been any discontent about that discrimination in regard to freight rates?—We always consider our freights are too high.

2691. Have you made representations on the matter?—Yes, constantly.

2692. But you have had no satisfaction?—We do sometimes and sometimes we do not.

2693. Does the railway rate compensate you at all on those classes of goods for the discrimination which the ships make?—In some instances they do, but not in all.

2694. Do they in the majority of classes of cargo?—The ship's rate is always charged by measurement or by weight, whichever is the higher, whereas railway charges are always based on weight.

2695. **(Mr. Bowring.)** Do all the steamship lines trading from Europe make East London a port of call?—Most of them. Many go straight to Natal, however, and some go from Cape Town to Australia. But the great majority call here. In the former times there was a conference of the shipping companies and the rebates kept them all together. Now that the rebates have been done away with any ship could call here with cargo if it likes.

2696. Have you a coastal service apart from the larger steamers which come out from England?—No, except a few small steamers with timber from Knysna and the colliers. It is mostly the regular steamers which go from port to port that do the coastal service.

Mr. J. W. Sowarsby, M.Inst.C.E., Divisional Superintendent, and Captain M. G. Grogan, Port Captain, East London Harbour, called and examined.

2697. **(Chairman.)** Mr. Sowarsby, I believe you are Divisional Superintendent at East London?—Yes. That includes superintendence of the engineering, traffic, and locomotive working of the eastern division of railways, and also of the harbour.

2698. And you are in charge of the new works at the harbour?—Yes.

2699. Will you please tell the Commission the present condition of the harbour, and what proposals are under consideration at present for improving it?—Yes, I have the plan here. (*Witness produced the plan* and explained the same.*) The requirement at the present moment, as far as the harbour is concerned, is a better entrance. The trade of East London has somewhat outgrown the port. I would not say there is danger in bringing ships in, but the time has arrived when something better should be provided in the way of outside shelter. A vote of 150,000*l.* has been sanctioned by the Government for extending the south breakwater by 500 feet. 162 feet of the breakwater extension has been completed at an approximate cost of 75,000*l.*, but we have many yards of material ready for depositing as soon as the weather is favourable. A proposal has just been put before the Government for the further extension of the south breakwater by 500 feet, making a total of 1,000 feet, but that has not yet been sanctioned. In connection with the south breakwater extension, it was proposed that a new eastern arm should be constructed, approximately 2,000 feet long, coming off from the beach in the vicinity of the Marine Park, which is quite close to the Beach Hotel, and running practically at right angles to the present south breakwater, leaving an entrance of approximately 700 feet in width. The present east pier gives but little space between the west wall and the east pier. The intention is that the present east pier should be entirely removed, and that would necessitate also the removal of the sunken dredger that we had the misfortune to lose several years ago. There would be no difficulty in removing this eastern pier as soon as we have the necessary shelter of the proposed south and east breakwaters. In addition to the work I have already enumerated, there is a patch of rock about 22 feet 9 inches below low water, just off the present south breakwater head. Sanction has already been obtained and 10,000*l.* voted by Parliament for the removal of the rock. There is only about 4,000 yards to remove in order to take the depth down to 30 feet. I do not think we should be able to do anything in regard to the removal of that until we get the breakwater extended 500 feet, when the necessary shelter would be afforded and that rock would be taken out by divers after having been broken up by the Lobnitz cutter.

2700. What is your present draught of water?—We are practically limited to 22 feet. For long ships we state that we have 20 feet at low water.

2701. That would be the deepest vessel you could get in?—That would allow vessels of 18 or 19 feet to be brought in at low water. At high water we could take vessels in, under favourable circumstances, up to 23 feet and 24 feet.

* Not reproduced.

2702. What depth of water do you aim at?—I am under the impression we should not be satisfied with less than from 35 feet to 40 feet.

2703. And that depth you would get under the new scheme? Or would the expenditure for the deepening be in excess of that amount?—The deepening proper would be in excess of that amount.

2704. Could you do that out of current expenditure? —Yes, it could be done that way. We think if sanction is given for this amount we should start and persevere with the bucket dredger and have the deepening inside completed by the time the outer work is completed.

2705. In how many years would this be completed? —Given favourable conditions, and judging from the little piece we have done here, I think six years should go a long way towards finishing it.

2706. At what expenditure?—150,000*l.* is already sanctioned, and a further 150,000*l.* is required for the 1,000 feet extension, approximately. For the eastern pier 170,000*l.*, and the removal of the present eastern pier 60,000*l.*

2707. A total of 530,000*l.*?—Yes, in round figures. I can give you the exact estimate, if necessary.*

2708. Yes, I think that would be desirable. You might let us have it. Now, with your experience, do you think that with an expenditure of 530,000*l.*, plus the expenditure in six years in deepening the channel, you would have a harbour available for vessels drawing 35 to 40 feet?—Yes, at high water.

2709. And what maximum length? — Well, we could take the present mail boats. But the turning of the boats after we got inside would be the difficulty. Provision would have to be made up stream, probably at the first creek, for turning the vessels. We should require something like 800 feet or 900 feet across there. At present the width from the east to the west bank is only 700 feet.

2710. And you would require what expenditure to get an adequate turning basin?—That would be rather an expensive item. I should say it would run into 50,000*l.*

2711. That would enable you to turn a vessel of what length?—The present mail boats—500 feet to 550 feet. Of course, the question of turning in this area of 60 acres at the mouth of the river is worthy of consideration. Under certain conditions the boats would have to come in here at a pretty good pace so far as steering is concerned, but once having been brought into the river, if we were stuck for turning I think it would be worth while asking the port captain's views as to whether this area could not be utilised. It would be preferable to have a turning berth up stream, I should think. **(Captain Grogan.)** I think that vessels proceeding up river should be turned in the river as they could not be turned in the outer basin and towed stern up the river. It would be possible, if the east breakwater were completed, to turn long ships like the mail boats after passing the breakwater; and provision could be made in the future to berth vessels at the East breakwater.

2712. What is the actual depth of water *there*? —**(Mr. Sowarsby.)** There is plenty of depth, but the area is limited.

2713. What is the depth of the soundings shown on your chart?—This chart is somewhat out of date. *This* is a later one and it gives you the depths in 1905. It shows good water right through the narrows. In the channel there is no rock shown right away through to *this* point. (*Indicating on plan.*) *This* rock would not interfere in any way with vessels entering.

2714. Assuming you dredged out a new basin to allow of vessels turning, would not that get filled up with sand?—You would no doubt get a little, but there is no difficulty in dredging it.

2715. What is your present and contemplated dredging capacity?—We have one dredger of 2,000 tons capacity, another of 1,000 tons, and a third which is too small for the port, one of 600 tons.

2716. Do you contemplate adding to that capacity? —Yes, it has been recommended that a dredger of 3,000 tons capacity should be ordered.

2717. What would the cost of that be? Have you any idea? —The largest dredger we have now cost 72,000*l.*, so it would cost anything, say, from 80,000*l.* to 90,000*l.* to provide the dredger we want.

2718. Where do you employ your dredgers mainly? —The port captain is endeavouring, as far as possible, to work at the back of the breakwater. Our sand travels in that direction down the coast and, when we get very bad weather, we get it also round the eastern wall. But the dredging is being done here as far as possible to intercept the sand before it gets round the breakwater head.

2719. You set sand traps?—Yes.

2720. How long have you adopted that system?—It has been worked very efficiently for the last two or three years.

2721. Does it give thoroughly good results?— **(Captain Grogan.)** Yes, very good results. We are guided principally by the weather conditions as to where we dredge.

2722. Do you dig holes or merely scrape the sand away?—We merely make a big hole, where the sand goes down 40 to 45 feet. You can only make holes—you cannot scrape. That hole stops the sand drifting past into the channel. As soon as the catchpit area gets filled in—20, 18, or 15 feet—it drifts into the channel and silts up.

2723. **(Mr. Campbell.)** There is a good deal of rock between the east pier and directly opposite the south breakwater?—**(Mr. Sowarsby.)** Yes.

2724. Supposing you were to deepen the entrance to 35 feet, would you not have to take up this reef too?—(*Witness explained in detail by means of the chart that by taking away the East pier the entrance channel would be moved to the Eastward and the present rock under the lee of the South breakwater would be out of the fairway.*)

2725. **(Mr. Sinclair.)** Do the requirements of your port, within a time which is in sight, call for the extensive alterations of which you speak?—Yes, I think so.

2726. You consider that the time has arrived when the trade requirements of your port call for these improvements and this expenditure?—Yes, undoubtedly the port should be improved without further delay.

2727. Has the scheme been considered—as you have explained it to us to-day—by those in authority? —Messrs. Coode, Son, and Matthews have reported on several occasions, and Mr. Methven of Durban, the marine engineer, has also reported, and this scheme that I have described to you is practically the outcome of the reports of Messrs. Coode, Son, and Matthews and Mr. Methven, with the assistance of the local officers.

2728. Are the extension and the operations of which you have spoken a live scheme that you are going to try and carry out?—Yes, a recommendation was made a little while ago in Cape Town by the Harbour Advisory Board. They saw the Railway Board Commissioners and the General Manager of Railways and Harbours and the scheme was then fully discussed.

* The witness subsequently furnished the following statement:

EAST LONDON HARBOUR.

Estimate of Cost of completing Outer Entrance Works.

	£	£
500 feet extension of South Breakwater now in progress		150,000
Removal of submerged rock at entrance		10,000
Total vote sanctioned		160,000
500 feet further Extension of South Breakwater	150,000	
Construction of new East Breakwater	170,000	
Removal of East Pier and wreck "Lucy"	60,000	
TOTAL COST of Works awaiting sanction		380,000
		£540,000

Estimated cost of total scheme is 540,000*l.*, of which an amount of 160,000*l.* is already voted.

2729. Then it is regarded as practical polities?—Yes.

2730. **(Mr. Bowring.)** The harbour, as you have it now, is dredged from the Buffalo River mouth?—Yes.

2731. Is there any considerable amount of water running in the river—fresh water?—No, except in flood time.

2732. This is all a made harbour?—Yes.

2733. There was no basin there at all at first?—No.

2734. You have laid out a good deal of money on it already, I presume?—Yes. I think the capital is 2,000,000*l.* in round figures. But that includes our plant and very considerable shed, wharfage, and sidings accommodation, and other assets. The capital expenditure on which interest is payable is about 1,600,000*l.*

2735. **(Sir Rider Haggard.)** You said that a vote of 150,000*l.* had already been sanctioned by the Government?—Yes.

2736. What does that mean?—It means that the Government has given authority to expend the sum of 150,000*l.*

2737. How is that money raised?—By Parliamentary vote.

2738. The Government finds the money?—Yes: it is the General Railway and Harbours Vote.

2739. Do you have to repay the Government at all?—They charge interest and depreciation and there is a sinking fund.

2740. Then to carry out these other works you have spoken about you would have to get another vote of roughly, say, 300,000*l.* or 400,000*l.*?—Yes.

2741. Would that money be obtained in the same way?—Yes.

2742. And therefore it would depend on whether you could convince the Government that those works are necessary, whether or not you would get your money?—Attention has been drawn to the fact that if these works were carried out the lighterage at the port would to a great extent disappear and, consequently, an approximate cost of 16,000*l.* to 18,000*l.*, which is the present cost of lighterage per annum, would be saved under this head. It is anticipated that the larger boats would come in and additional revenue be gained from this source.

2743. Of course, if your lighterage disappears it means that a certain amount of employment disappears also?—Yes.

2744. Therefore, a certain amount of money disappears in connection with this lightering business, does it not?—Yes, approximately 2,000*l.* per annum is spent in lighterage crews. But all these people would not be turned adrift. **(Captain Grogan.)** More ships would come into the port, and, therefore, these men would be employed there.

2745. You look to the increase in trade to make good any loss which might be entailed by getting rid of the lighters?—**(Mr. Sowarsby.)** Yes, but there will be no loss by abandoning lighterage, in which connection see statement handed in.*

* The following is the statement :—

Statement showing effect of providing inside Harbour Accommodation to all Shipping dealt with at East London during the year 1913.

	£	£
Saving of lighterage expenses, including working, upkeep, and maintenance of lighters, proportion of towage and cranage involved, and interest and depreciation on the plant used		16,549
Estimated additional revenue from shipping thus brought into harbour (on present tariff), 206 vessels, including 104 mail-boats :—		
Harbour dues, pilotage, and towage	14,934	
Cranage, water, fenders, &c.	950	
Saving in claims due to less and better handling of cargo	150	
		16,034
		32,583

Note.—Under the tariff proposed to be brought into effect from 1st July next the additional revenue as above is estimated to amount to 12,342*l.* instead of 16,034*l.*, making a total of 28,891*l.* instead of 32,583*l.*

2746. You would have to convince the Government of the desirability of this in order to get the large sum of money you require?—Yes, we would have to convince the powers that be that the time has come when we should have a better entrance to the port.

2747. Have you a good prospect of convincing them of that desirability?—I would suggest that the representatives of the Harbour Advisory Board, who met the Railway Board a fortnight ago, placed the case very clearly before them. It is very difficult, indeed, to judge whether the powers that be were convinced or not, but, at the same time, I think they realise the necessity for something to be done.

2748. Supposing you failed to convince them—is there any other method by which you could get your money?—No, I do not think so.

2749. You have to pay for a new dredger, roughly 100,000*l.*?—Yes.

2750. And in addition to that you have to pay for your deepening?—Yes.

2751. So the bill is going to be pretty considerable?—Yes.

2752. What do you anticipate in return supposing this is all done and you have a harbour of 60 acres? What do you anticipate your increase in trade will be?—In the first place, we get more efficiency of working and better conditions for the handling of cargo. It is difficult to predict the actual increase in trade, but so far as this port is concerned the trade is increasing.

2753. You lie between two great ports—Cape Town and Durban?—Yes.

2754. And do you think, supposing all this expenditure is made and you get all these additional facilities, that you will be able in future to get enough of the general trade of South Africa away from Cape Town and Durban to repay the outlay?—Yes, I think the distance between Cape Town and Durban warrants another port here, and I think the back country we have is sufficient to keep that port going.

2755. You think you will have a fairly large port and that you will get enough business from your hinterland to keep any number of vessels which use that port laden?—I would answer that in this way—I feel confident that our trade is going to increase.

2756. You will admit that this is an economic question—whether it will pay?—Yes, and I think, apart from that, if you take the engineering side of the question, it is time something was done to improve the entrance.

2757. This is the question—when you have spent your half million will you get a sufficient increase of trade to pay for it?—We shall maintain our trade, and my own opinion is that we shall get a sufficient increase of trade to pay for it.

2758. And you think that trade will produce enough money to recompense the Government for the expenditure?—Yes.

2759. That will mean a good many more ships?—Yes.

2760. And when you have these ships in you will have to turn them up to the creek to turn them, and that will involve a further expenditure of 50,000*l.*?—Yes, approximately.

2761. And even then you can only turn a ship of the size of the present mail boat?—It is impossible to give the actual figures because this scheme has not been estimated thoroughly in so far as dredging the creek is concerned.

2762. But that is your idea?—Yes. I think that is the proper place.

2763. And what depth of water would there be—35 to 40 feet?—Yes.

2764. That would mean that although you could accommodate the largest ocean-going vessels you could not turn them?—Provision must be made.

2765. But these big vessels of the near future will be 700 feet to 1,000 feet long?—**(Captain Grogan.)** We are not anticipating those. But you could make it available for those even: you could make this creek as wide as you like.

2766. That would add to the cost?—Yes.

Bloemfontein, 20 March 1914.] Mr. W. EHRLICH, J.P. [*Railways, Harbours, and Coal for Bunkering and Shipment.*

2767. What has been spent already on this harbour? **(Mr. Sowarsby.)** The assets total two millions, including dredgers, lighters, tugs, wharves, and all the accommodation. The capital expenditure, including all plant, breakwaters, wharves, appliances, sidings, &c., is between 1,600,000*l.* and 1,700,000*l.*

2768. What does the town have to repay to the Government annually? I presume it pays interest?—Not the town. The Government does the whole thing.

2769. **(Mr. Campbell.)** Does the revenue from the harbour meet the sinking fund with interest now?—I am afraid it does not, owing to the tariff in force, which was not designed to meet the full interest and depreciation charges.

2770. By how much?—We lose 54,000*l.* odd per annum. But I may mention that the question of tariffs is receiving the consideration of the Government, and if uniform rates are brought into operation, as proposed, from the 1st July next, there will be no difficulty in making the harbour pay.

ORANGE FREE STATE.

Bloemfontein, Friday, 20th March 1914.

Mr. W. EHRLICH, J.P., Vice-President of the Bloemfontein Chamber of Commerce, called and examined.

(*For evidence of this witness on "General Trade Questions," see p. 158 of* [*Cd. 7707*].)

2771. **(Mr. Lorimer.)** You or some other representative of the Chamber said that the harbours should be made self-supporting. That would be desirable, of course, but you say, I understand, that this would lower railway rates to the inland towns. You expect that the railway rates should be reduced to the extent that the harbours are made more profitable?—Yes, at present the harbours are worked at an annual loss of about a quarter of a million, and that actual loss has to be made good out of the profits of the railways, and this profit is paid for by the up-country individual.

2772. But I do not quite follow you when you seem to think that that would cheapen your imports, because the additional harbour charges in the way of dues would be imposed on the articles imported, would they not?—Yes. We do not say that it would make any difference in the cost, but the burden would be better distributed.

NATAL.

Durban, Monday, 23rd March 1914.

Mr. J. T. WILLIAMS, Managing Director of The Natal Navigation Collieries and Estate Company, Ltd., called and examined.

(*For evidence of this witness on "Mining," see p. 24 of* [*Cd. 7707*].)

2773. **(Chairman.)** You are engaged in the coal industry?—Yes, I have been connected with it for fourteen years, since 1900.

2774. You have been good enough to supply memoranda on the Natal coal industry?—Yes.*

2775. You give the annual output totals which show that the output amounted to 2,608,000 tons in 1913?—Yes, there is a detailed statement showing the annual output for each year.

2776. And you state that the collieries could increase their output by 50 per cent., provided there was a regular supply of rolling stock and adequate native labour?—Yes.

2777. Is that with their actual plant?—Yes, with the collieries as they stand to-day.

2778. You would not require further machinery and equipment?—No, I do not think so, not very much, provided we have sufficient native labour and no difficulties as to truck supply.

2779. And could they sell that extra amount at present prices?—No.

2780. Then are you tied up by the absence of a regular supply of rolling stock?—Yes, the supply is always more or less intermittent, although the amount of railway stock is always increasing. They do not seem to be able to overtake the expansion of trade and ordinary maintenance or wastage.

2781. Has there been some complaint as to trucks being kept waiting a long time?—That is, of course, the stereotyped reply of the railway administration; they point out that the trucks are under load at the ports, but the storage trucks at the ports are an absolute necessity unless they supply an equivalent storage in some other form such as bin accommodation. At the Bluff there is a bin to-day capable of holding 10,000 tons, and the quantity of appliances necessary to handle the coal in the usual way is not sufficient to deal also with the bin. They can only put coal into the bin when the appliances are otherwise idle.

2782. You mean to say that the trade stores its coal at Durban in trucks in preference to taking it out. Do you actually store your coal in trucks at Durban?—Yes, to a large extent.

2783. Is that not rather an extravagant way of using trucks?—Yes, it is, but there is no other way of doing it, and owing to the irregular manner in which the ships arrive here, you cannot off-load the trucks as they arrive at the ports, because we are entirely in the hands of the ships; they arrive irregularly, and the trucks are off-loaded irregularly

2784. It comes to this, that you use the trucks as a store?—Yes.

2785. In default of the existence of other means of storage?—Yes.

* *See* Appendix III., p. 148.

2786. What would be the cost of providing the means of storage?—I cannot say, but the Government have already arranged for increasing the loading appliances, which will make the bin more useful than it is at present.

2787. What is the average number of trucks standing here?—It varies, but I should say about 8,000 to 16,000 tons in long tons, and more at times.

2788. And the total amount of coal put into steamers annually here is what—I mean for cargo or bunker?—For bunkers, taking 1913 as a basis, the tonnage put into vessels was 1,081,205 tons, the tonnage put into steamers as cargo for export was 615,550 tons. In percentages you will see it stated on page 1 of this abstract. The averages have been calculated for the outputs of four years, but the details of each are shown in Annexure "A."* Bunkers take 49 per cent. of the total output, exports 19 per cent., railways and harbours 14 per cent., and the balance, 18 per cent., was used in South Africa itself for inland consumption.

2789. Are those proportions remaining constant?—No, they vary.

2790. Give us the general tendency?—In bunkers it varied from 1,080,000 to 1,266,000 tons, and in regard to exports in three years from 323,344 tons to 615,550 tons. The other factors are the quantities used by the South African Railways and by inland consumers. They vary according to the trade and commerce of the country. I would add in this connection that if you take the 1913 figures as a basis, it will be found that the average tonnage bunkered per day, taking a year to consist of 310 working days, comes to 3,500 tons. Taking the exports for 1913 as a basis the tonnage exported per day was roughly 2,000 tons. The total shipment of coal for 1913 represented 5,500 long tons per day for bunkers and export.

2791. With cheaper labour or more labour and reduced railway rates, there is a very large potential market in South America?—Yes.

2792. Dealing with the question of railway rates, are you satisfied with your present railway rates?—We are not at all satisfied either with the rates for bunker coal or for export coal. We cannot enter the South American market with the present export rate although it is 1*s.* 1½*d.* per long ton below the rate for bunker coal.

2793. Can you give the rates for the two?—For bunker coal per long ton the general rate is 6*s.* 8*d.* for an average distance, that is, for the distance mostly traversed, and the rate for export coal is 5*s.* 6½*d.* per long ton. As a matter of fact we have not been able to send any coal to South America to any extent. One company did try that market four or five years ago, but I do not think it was a payable experiment.

2794. Your lowest rate for export coal is what?—5*s.* 6½*d.* for export and 6*s.* 8*d.* for bunker. When I say it is the lowest rate, I mean it is the lowest rate for the bulk of the traffic. There are one or two collieries where the rates are slightly lower, and in one case 5*s.* 10*d.* and another 6*s.* 1*d.* for shipment coal, I think.

2795. That for a haul of how many miles?—The average haul is about 248 miles, but in regard to the most important collieries the haul is 241 miles.

2796. That comes to about ½*d.* per mile?—It is one-third of a penny as a matter of fact, except for long distances, that is, distances in excess of 240 miles. For distances over 240 miles the rate is ·297 of a penny per ton per mile unless the general rate of one-third of a penny comes to more. It is rather complicated, but it means that there is a uniform rate of 6*s.* 8*d.* for certain distances, and after that it is ·297 for some distance, and then it becomes lower.

2797. The rate comes to between ½*d.* and one-third of a penny per mile?—Yes.

2798. The lowest rate is ·297 of a penny, and you consider that too high?—Yes, for coal shipped at Durban.

2799. Taking into consideration the difficulty of haulage over the hilly line?—Well, we think the rate of 6*s.* 8*d.* is very profitable to the railway department notwithstanding all the difficulties.

2800. Is it because the line is a difficult one to work?—Yes, but it becomes easier as more expenditure is applied to it in removing and enlarging the curves and reducing the gradients.

2800*a*. Is considerable improvement being made in that direction?—Yes, very considerable. In fact, at the present time the gross load is 620 to 640 tons. On some sections of the line not so very long ago, the gross load would be below 400 tons. There has been a decided improvement, due partly to improving the gradients, but also to the introduction of higher-powered locomotives. The Mallet engine has considerably increased the load carried.

2801. And when all the improvements now in process of execution are complete, will there be much further improvement?—When all the improvements now in progress are completed it will probably suffice for the 50 per cent. increase in trade which we refer to, but whether it will provide for the expansion which Natal is looking forward to in a few years hence, I cannot say; I doubt it.

2802. Have you anything to say about the alternative line?—We think that the construction of a line similar to the one we call the alternative main line is necessary. We want a shorter route. We want to reduce the distance, to quicken the speed, and reduce the cost of working the railway so as to enable cheaper coal rates to be established.

2803. In regard to oversea markets, to what country or countries do you anticipate increasing your trade?—We ought to be able to increase our trade to India, the Straits Settlements, &c., the Dutch East Indies, Mauritius, the East Coast of Africa, and South America. The largest of those markets is South America, if we could get in. That is the country which imports the most coal to-day. I think the imports from the United Kingdom to-day represent something like three or four million tons per annum.

2804. Have you detailed figures regarding the cost of coal in those countries?—I can supply those later on.*

2805. Now in regard to trade with India. What is the current rate of freight from India to here on cargo coal at the present time?—We pay 6*s.* 6*d.* to Bombay at the present time. Freights have been 8*s.* I have given examples of what has been paid in the past in the statement of what rates have been obtainable for coal from Natal in the different years mentioned.

2806. The total of those places consume what or how much coal per year—an enormous lot?—Yes. Bombay alone will take from 300,000 to 500,000 tons from South Africa. It imports oversea 1¼ to 1½ million tons. The other markets it is very difficult to estimate, that is the Straits Settlements and the East, but they ought to take something like 100,000 to 150,000 tons. You will notice from my statement that we come into competition at all these places with

* *See* p. 152.

* The witness subsequently furnished the following statement (dated March 31, 1914):—

"I have just obtained by cable quotations for different "coals at destinations which Natal looks upon as actual and "possible markets. The figures are as follows:—

Coal supplied.	Bombay.	Colombo.	Singapore.	River Plate.
	s. d.	*s. d.*	*s. d.*	*s. d.*
Welsh	30 3	30 6	31 3	32 9
Indian	19 0	18 0	19 0	—
Australian	22 0	22 0	22 0	—
Japan	20 6	21 0	19 0	—
American	—	—	—	27 0
Natal	21 3	21 0	22 3	—

"No doubt contracts would be based on prices above or "below the foregoing figures, say at variation of 5 or 7½ per "cent."

other coals, especially in India and the Straits Settlements. In India we come into competition with Indian coal itself, with Transvaal coal, Welsh coal, Japanese coal, and also Australian coal. The same coals also compete at the Straits Settlements and the Dutch East Indies.

2807. I suppose the cheap freight from here to India or the extreme East ports depends very largely on the import trade here, ships coming here in cargo and wanting something to go on with?—Yes, to some extent, but I think it also largely depends on steamers coming across for cargoes in the East calling at Durban and sometimes taking cargo away.

2808. Coming from where?—Sometimes from South America and sometimes from the United Kingdom, but when they come from the United Kingdom they have usually a cargo for Durban. When they come from South America they often come in ballast to pick up a cargo here.

2809. Is a large proportion of the coal exported to India taken in ships that come in ballast from South America?—Not a very large proportion. That is mostly done by the boats of the Clan Line, the Bullard King Line, the Hall Line, and the Bucknall Line.

2810. Well, they are from the United Kingdom?—Yes.

2811. Bringing goods here and wanting something to go to India with?—Yes.

2812. And have you an increasing trade between East and West, especially with Australia. What is your bunkering business with ships returning from Australia, is it increasing?—Yes, very rapidly.

2813. And have you figures for that?—No.

2814. Could you give us figures?—Yes, we will supply figures in regard to coal supplied to steamers in the Australian trade.*

2815. That is an increasing trade, I understand?—Yes, a rapidly increasing trade. All the important steamship owners engaged in the Australian trade during the last four years have largely increased the number and size of their vessels; the "Ulysses" is a case in point. She called here the other day to take over 3,000 tons of bunker coal. She belongs to the Blue Funnel Line, and that coal was put on board in less than a day, although she was not coaling continuously.

2816. The Australian ships that bunker here are on the return voyage to England, or do you get some outward-bound vessels also?—It is rarely that we get an outward-bound ship here. In 1913 we had a number, but I understand it is not likely that there will be much business of that kind unless all the lines agree to call at Durban, owing to the time taken on the route *viâ* Durban being from two to three and a half days longer. Naturally, one or two lines do not want to prejudice themselves by calling here unless they all agree to do so.

2817. Calling at Durban on the outward voyage means an increase of distance of 1,000 miles?—Yes, but I think you have to take more than the distance into account. From Cape Town to Australia you have the advantage of the prevailing westerly winds, which do not help so much from Durban, but in the reverse direction it suits them to call at Durban so as to avoid the head winds, which help them in the other direction. I understand that before the Australian steamers began calling at Durban, their course was fixed only about 200 miles south, so it did not mean much extra time coming *viâ* Durban and coaling there. In the reverse direction, of course, they would be considerably south, in fact south of the latitude of Cape Town.

2818. Now, what do you say regarding your port facilities here. You have already said the bin facilities or the handling into the bin are not sufficient?—Yes.

2819. Is it not the case that Natal coal deteriorates by frequent handling?—Any coal will, and some Natal coals are more brittle than others.

2820. Is Natal coal exceptionally brittle or not?—No, not generally speaking, but some of it is rather brittle; I would not say any of it is exceptionally brittle, that is, as brittle as South Wales coal, for instance. I have seen South Wales coal at Cape Town very much smaller in size than Natal coal when it gets to Cape Town; that is no doubt due to handling.

2821. What is the quality of Natal coal as compared with Welsh?—I should say the best Natal coal would be about 10 per cent. inferior to Welsh coal, but, of course, there are coals and coals in Natal, some of them would be considered much less efficient than Welsh coal. We have had tests made on the Cape Railways where Natal coal gave better results than Welsh, although the best Welsh coal was used, but perhaps that was due to want of proper knowledge of handling of the two coals.

2822. What is the freight from Durban to Cape Town?—The freight from Durban varies. It has been as low as 5*s*. 3*d*. We paid the Union-Castle Company 5*s*. 3*d*. in 1910, and 6*s*. in 1911 and 1912, and 8*s*. in 1913, but at present, I believe, the freight would be about 6*s*. 6*d*. to 7*s*.

2823. Has there been any combination of Natal coal owners to secure cheap freight from here to Cape Town?—There is a combination of Natal coal owners, one of the objects of which is to make an export trade possible, that is to facilitate the shipment of large quantities at one time.

2824. From here to Cape Town?—Yes, and elsewhere.

2825. Was that combination not able to obtain means for reducing the freight?—We believe the freights we paid were about as reasonable as any we could get from anybody else.

2826. What rate did you pay?—The freights we paid were those stated. Until last year the freighting of the coal from the Associated Collieries has been done by the Union-Castle Company and this year the Company has gone out, and the same coal companies have entered into a contract with a private firm—a certain number of them.

2827. At what rate?—We have sold the coal at prices free at ship Durban, and the buyer makes his own price at the other end. That was the case with the Union-Castle Company, and when I say we paid these figures I do not mean that we quoted c.i.f. Cape Town, but we know those were the prices the Union-Castle Company included in the freight in arriving at their prices in Cape Town. We paid these freights on coal outside the contract. We sold at those prices to the Union-Castle Company, leaving them to provide shipping and so on.

2828. I suppose you would consider that if the Australian mail, instead of going through the Suez Canal, came *viâ* the Cape and returned *viâ* the Cape, it would be of great benefit to you?—Yes, we would thereby increase very much the export of Natal coal to Cape Town for bunkering purposes. But it would, of course, suit very much better to divert it to Durban. It would suit the town better and facilitate the bunkering of the coal.

2829. That would be difficult in the case of the mail steamer, would it not?—It might be.

2830. **(Mr. Sinclair.)** You said there was no storage at the port for coal. Are there no bins at the mines?—Yes, most of them have bins, and these have been made necessary by the insufficient supply of rolling stock.

2831. There is storage in bins for considerable quantities at the mines, is there not?—Yes, I think

* The witness subsequently forwarded the following statement:—

Approximate tonnage of coal supplied at Durban, for bunkers, between July 1st, 1912, and March 21st, 1914, to steamers in the Australian trade:—

	Tons.
1. Tons supplied to passenger steamers (regular liners)	161,000
2. Tons supplied to cargo steamers (regular liners)	138,000
3. Tons supplied to cargo boats (tramps)	83,000
	382,000

the largest quantity that can be stored at any individual mine is 1,500 tons, but those bins were not provided for storage accommodation as such, but in order that the mine might be kept working when trucks failed.

2832. Does the Admiralty take any coal?—Yes, they take coal for the gunboats and for transports between India and the United Kingdom.

2833. Do they make it a condition of the contract that there shall be storage accommodation for certain quantities?—No, there is no such condition.

2834. Are you charged for using the trucks belonging to the railway department for storage of coal in the ports?—No, there is no demurrage charge. If a demurrage charge were made we could not afford to pay it.

2835. You are very favourably situated as against some other countries that are coal producers in the matter of labour costs, are you not?—Yes, and we give the buyer a corresponding advantage in the price of coal. I suppose the price of coal at Durban is cheaper than at any other place in the world.

2836. **(Mr. Lorimer.)** Can you tell me what is the rate per ton per mile for Transvaal coal to Cape Town and Natal coal to Cape Town?—The principal coal-sending station in the Transvaal is Witbank. The rate per ton per mile from there to Cape Town is ·15 of a penny for bunkering and ·16 of a penny for coal used at Cape Town itself. From the chief coal-sending station in Natal to Durban the rate for bunkering is ·33 of a penny per long ton, and I think it works out at ·27 of a penny per ton for export coal; the figures from Witbank are for short tons. For short tons the figures: Hatting Spruit to Durban, would be ·25*d.* and ·246*d.* respectively.

2837. Practically the one rate is double the other?—No, not quite double, but very nearly.

2838. Now, of your Natal trade can you say how much goes to Cape Town for bunkering, I mean in percentages, and how much comes here for general export and how much comes here for bunkering?—Taking 1913 as a basis, the *total* bunker coal was 1,080,205 tons, and the quantity exported by sea as cargo 615,556 tons.

2839. Does the export overland include what you send to Cape Town for bunkering purposes?—No, it is stated as exports by sea. The figures for export to Cape Town are given on another page. Last year they were something like 300,000 tons.

2840. Can you tell me how many trips a wagon will make in a week backwards and forwards to the colliery?—Yes.

2841. If you were free from all accidents and disturbances on the railway, and delays, how many times would a wagon go to the coalfields in the course of a week?—About twice.

2842. How many trips does it actually make now?—I think about three trips in a month.

2843. Whose fault is that?—It is partly the fault of the railway and partly due to the want of storage accommodation at the port, because you cannot discharge the trucks as fast as they arrive.

2844. You use the wagons as stores?—Yes.

2845. Do you pay anything for that?—No.

2846. Does the Government make any claim for demurrage?—No.

2847. Is it not asking rather a good deal to ask them to provide storage accommodation for you?—Well, they have provided it to the extent of 10,000 tons at the port, but that is of very little use, because they have not sufficient appliances to put the coal into the bin.

2848. Supposing you had these bins, would they add much to the cost of handling?—They make a charge of 2*d.* a ton per week for storage in bins.

2849. Is that in addition to loading and unloading again?—They make no charge for loading into the bin, but they charge for reloading into the steamer the same charge as they would make for loading into ship *ex* truck.

2850. Well, if you cannot put it into the bin on account of the risk of fire, can you keep it in the truck any longer?—It is kept in the truck from 1 to 10 days, perhaps, according to the colliery whose coal it is and according to the arrival of the steamer.

2851. It would be a partial solution of your difficulty if the bin accommodation was increased?—Yes, and the present bin accommodation made effective.

2852. You cannot expect the Government to supply an indefinite number of wagons and keep them as storage?—No, not an indefinite number, but we have always maintained that we must have storage accommodation in one form or another, in trucks or bins, for 25,000 tons.

2853. I see by your paper you think you would get some of your difficulties removed if you had more powerful locomotives?—Yes.

2854. I do not know whether you are aware of it or not, but there are no locomotives in the world in respect to power like those of Natal for the 3 feet 6 inch gauge?—When I say more powerful locomotives, what I mean is a larger number of the powerful engines which they have got; they should have more of the Mallet type.

2855. I do not think you have much room to blame the Government; they are doing very excellent work for you; and there is another thing that you have to bear in mind, and that is that there is a limit to that which they can economically do, because if they were to make heavier locomotives, carrying more weight on the axle than now, they would have to reconstruct that section of their railway line on which these engines run?—I do not recommend that they should increase the tractive power per engine, but I suggest that a larger number of high-powered engines should be obtained for this traffic.

2856. What are the functions of the railway board as it now exists?—I cannot tell you.

2857. Have they any statutory power to deal with such conditions?—The railway board do not know themselves what their powers are, and they are going to ask Parliament to pass an Act defining these powers.

2858. A new line to the coal-fields has been proposed for many years, has it not?—Yes, during the last fourteen years.

2859. No doubt that would facilitate the traffic immensely, but the reduction in the gradients is a great step in advance, and do you think that the traffic would justify an additional line to the one which already exists?—I hope the traffic will justify the additional line, because, I suppose, before many years are over, the question of either duplicating the present main line or constructing a new line will have to be seriously considered, at any rate we hope so.

2860. I think you said that the coal was carried in wagons holding 35 to 40 tons. Is that coal for shipping purposes?—Yes.

2861. How are those coal wagons unloaded, are they discharged by hopper?—No, by dumper discharge, that is side discharge.

2862. That is slow work?—Except so far as the Bluff is concerned, where they have appliances for discharging the coal. By one operation the wagon is tilted over and discharged by one movement.

2863. Are those 40-ton wagons lifted bodily and slung over the ship?—No, but they are lifted bodily in order to be discharged. A truck carrying 35 tons is lifted bodily and tilted in order that the contents may be put into six wagons of six tons each. These six tons units are then lifted one by one by the Temperley transporter and taken from the dumper right across to the ship.

2864. How long does this operation take?—I think they can put two 6-ton trucks into a ship in about three minutes.

2865. **(Sir Alfred Bateman.)** The output of your coal is now four times what it was ten years ago?—Yes.

2866. That is a very large increase in spite of all these hindrances?—Yes, but the railway has been

improved wonderfully during the last two years, and this bin is a matter of recent history, and the dumper and other loading appliances have not been installed many years ; but we want to go forward, we are looking to the future.

2867. Do you attach importance to the combination among coal companies in Natal?—I attach importance to any movement which helps us to get an increased price for our coal.

2868. Do you consider they use their powers in moderation?—Yes. In great moderation, I think, when you see that even to-day the price of coal is only 17*s.* for the very best, and if a large contractor takes a large quantity he gets it at 16*s.*, free alongside at Durban.

2869. Do you sell coal for inland consumption?—We sell a small quantity for inland consumption at a low price at the pit's mouth.

2870. The price at the pit's mouth is not a very good guide?—Only in this way ; it shows the relative position of selling prices in the different Colonies, compared one with another. All the statistics at home are arrived at in the same way. The Board of Trade returns, for instance, only give you the averages. If you compare those tables with those issued by the Board of Trade you will find that South African prices are the lowest in the world practically. In fact, our figures are given in the Board of Trade returns published in England.

2871. Has your combination ever chartered its own vessels to take its coal to Cape Town?—Not this present combination ; it has been done by the previous combination.

2872. When was that?—During the war and shortly after. But that was only done for coal sold to the railway. We have never chartered a steamer for coal for the general public, including shipping. In those days the Natal collieries used to secure a large proportion of the coal used by the railways, and that was a big tonnage. We knew exactly how much was wanted every month, and arranged accordingly. But when we are dealing with the public requirements we cannot work out our estimate so exact.

2873. I suppose, if you were put to it, you could do it?—Yes, and we may have to do it. It depends on the conditions prevailing. If we found that stress of circumstances required a lower price at Cape Town the first step would be to consider the problem of freight.

2874. But what you cannot influence is the railage rate from the colliery to Durban?—Quite so, and we cannot influence the prices which the Government have fixed as the railway competitive rate. At home the public have the remedy in their own hands.

2875. I notice in the Railway Tariff there is a step at 240 miles—a difference in the rate. Was that for the purpose of fixing your rate or is it a natural break?—It was the adoption by the Union Administration of a scale that was in operation in Natal itself before Union. The reason why the scale broke at 240 miles was for the purpose of encouraging long-distance traffic in competition with the collieries nearer to the port, but when they adopted that scale as part of the Union scale, it seems to me the Government should have adopted the principle that it should be uniform right throughout the scale, and not pick and choose. But they reduced the scale for short distances so as to benefit the Transvaal, and reduced it very considerably for the longer distance again to benefit the Transvaal. We have no long distances over which that scale would be of much use.

2876. **(Mr. Campbell.)** You speak of the policy of attracting settlers to the land and the extension of industries ; is that a policy of encouraging immigration?—Yes. I merely put it in to show that the want of population is at the bottom of all our difficulties.

2877. Have you any suggestion as to the line of policy?—No, I simply speak from the point of view of one who wants to increase consumption.

2878. **(Mr. Tatlow.)** Did I understand you to say that, owing to the want of bins, you required to have 25,000 tons of coal stocked in wagons at the port?—We ask for that as the possible maximum. We can do with less.

2879. Your requirement would represent over 1,000 wagons kept under load?—Yes.

2880. But, as a matter of fact, what number of wagons have you, as a rule, held up with coal at the port—anything approaching that amount?—It varies from 9,000 to 30,000 tons. It was 27,000 the other day, but that was exceptional.

2881. It is very extravagant to do business in that way?—It varies every day. Sometimes we have unloaded the trucks as fast as they arrive. It depends on the arrival of the steamers. There have been days when there is hardly a steamer in port.

2882. Has the Government undertaken to provide bins?—They have not undertaken to provide additional bins, but they are putting up additional machinery which will make more effective the bins we have.

2883. Surely it would be far more economical to provide bins than to store in wagons, and they would also get a revenue of 2*d.* per ton per week from bins?—Yes. On the other hand, every extra handling breaks the coal.

2884. But is that the concern of the Government?—No, except that the Government must take the broader view that whatever helps the coal industry of the Province helps the Government, and if the coal is made so small by extra handling that ships do not like it, not only shall we suffer, but also the Government and everybody concerned.

2885. That is not given as a reason why they do not provide bins?—No.

2886. In regard to the rate—you say the reduced rate is an important matter in the expansion of your business. You do not go so far as to say that it is seriously retarding your business?—It does usually retard the export trade—the rate of 5*s.* 6½*d.*

2887. But if the Government demonstrated to you that they could not carry it at a less rate with a fair profit, what would you say then?—If they were able to demonstrate it to us we might be satisfied, but as I put it in one of my notes, the great bulk of the money received from coal is spent in the Colony. There is only a few pence returned to shareholders ; therefore all the money received for coal is spent locally, and I think it does not matter to the Government so much whether they get that money in the form of railage or in some other form for the support of the population.

2888. But then I thought the railways were conducted as a business proposition?—I am sorry we do not agree that it is so in every case.

2889. With a rate of less than one-third of a penny a mile it does seem to me, who knows something about railway haulage, as a very moderate rate?—Yes.

2890. Are the gradients against or in favour of the load from your collieries to-day?—It is a zigzag line—up and down.

2891. Is the balance in favour of the load or against it?—I should think it would be against it on the whole. In fact, one of the notorious difficulties of the line is the gradient. On the line, Estcourt to Highlands section, they are working on a grade of one in thirty, for many miles against the load. But these difficulties are being removed gradually, and I am taking that into account. I understand that before long the ruling gradient will be one in fifty or one in sixty-five. When that comes about, the working of the traffic will be much more economical.

2892. But you will have a heavy gradient even when it is reduced to one in sixty?—But when that comes about it will be better than it was before.

2893. **(Chairman.)** What would be the ruling gradient by the proposed alternative line?—One in sixty-five.

2894. Is that a surmise?—It has been surveyed as one in fifty.

2895. And you say it can be reduced to one in sixty-five?—Yes, that is claimed by one surveyor.

2896. By technical authority?—Yes.

2897. With regard to the bunkering trade in Cape Town, what proportion of the bunkering trade comes

to you and what proportion goes to the Transvaal?—Until this year all the bunkering was done with Natal coal, but with a small proportion of English coal re-shipped. Even now English coal is imported into Cape Town, but it has been a reducing tonnage since the Natal coal has become prominent for bunkering in Cape Town. I think now it is only at the rate of about 28,000 tons a year. I do not think we can stop very much more of that because it is taken to finish the loading of the steamer, and is mostly brought in by the Clan line of boats from Scotland.

2898. What about the competition with the Transvaal in the bunkering business?—We come into competition with them this year for the first time in Cape Town because of the lower rate which the Administration put into force last year. That is the rate of ·14*d.* per ton per mile that we complain of.

2899. **(Mr. Tatlow.)** I suppose the rate from the Transvaal comes out to practically the same as yours to Cape Town—so much per ton. How does it work out—the comparison per ton against your coal? What is the figure per ton at Cape Town?—The railway rate from Witbank to Cape Town for shipment coal is 13*s.* Ours for export coal to Durban is 4*s.* 11*d.*, that leaves 8*s.* 1*d.* to cover all other charges—that is, shipping, freight, and putting off the side of the ship at Cape Town. There is a margin to-day of 8*s.* 1*d.* as against the Transvaal rate in truck alongside water, Durban, before shipment as compared with price of Transvaal alongside wharf, Cape Town.

2900. **(Sir Alfred Bateman.)** I suppose it was meant to put you on an equality?—I think the object was to compel Natal to reduce the price of coal to Cape Town, and once that price is reduced Transvaal coal will stop coming down.

2901. **(Mr. Lorimer.)** Have you shipped any coal to South America?—Only one consignment, which was a loss.

2902. You had no repeat order?—We did not want one under those circumstances.

2903. What have you to compete with there?—South Wales coal and other coals from the United Kingdom.

2904. And the price you say—how much less than Welsh coal, do you remember?—Yes, it was less, if I remember rightly. At that time we were having to quote 23*s.* 6*d.* c.i.f. to secure the trade at all. I do not know what the comparison would be to-day. But the coal was sold here at 7*s.* 4*d.* at the pit's mouth. It was sold at 14*s.* f.a.s. Durban. The South American business was done at an absolute loss.

2905. And was the price you obtained the best you could get?—Yes.

2906. Because you say here you are very anxious to get into South America, but if you cannot do it except at a loss it does seem rather hopeless?—Yes, that is why we are trying to get the Railway Administration here to reduce the rate of freight on export coal.

Mr. Otto Siedle, Chairman of the Natal Coal Owners' Society, called and examined.

2907. **(Chairman.)** You are Chairman of the Natal Coal Owners' Society?—Yes.

2908. You have heard the evidence of the last witness, and I think you wish to add something in regard to the extension of trade to South America?—Yes. The actual evidence has been given by Mr. Williams, but unfortunately, owing to my absence in Cape Town, I have not had an opportunity of a conversation with him or seen his report in full, but I may say that I was interested in the cargo that went to South America, and to which reference has been made, which resulted in a loss. We are in the difficult position of being in competition with large coal owners, who are also largely interested in the railways of South America, and that is responsible for our not being able to enter the South American market, in addition to the fact that freights are not obtainable. At the period when the shipment was sent to which reference has been made, there was a trade in meat with South America, and steamers were coming here from the Argentine with frozen meat supplies, and that made it possible to get reasonable freights back to South America. But at present there is no class of trade which makes that possible. The steamers that come down from India going in that direction come laden with cargo, and they are very few and far between. On the other hand, the steamers taking coal from Cardiff to the Argentine, which would come round this way for the purpose of getting bunkers and going on to the East and Far East for freight would not afford the necessary cheap freight we require. We could not possibly do anything with the Argentine at anything more than, say, 7*s.* or 8*s.* a ton in the way of freight, owing to the United Kingdom supplying very large quantities, as I have mentioned. I was asked by Mr. Hoy, the General Manager of Railways, to say what I knew about the matter. I do not see any possibility of developing that trade with South America unless we get over the difficulty of the very many vested interests we have to compete with, and those vested interests had a great deal to do with the loss we had before, because we were frozen out.

2909. Those vested interests are in the mines and railways jointly, and I suppose in the mines and shipping companies also?—Yes.

2910. Then the question really comes down to cheap freight, and cheap freight means the question of return freight?—Yes.

2911. And there is no possibility or probability of much freight from South America here?—No. On the other hand, we hope to do business shortly—the business they were doing with us—exporting frozen meat and dairy produce to the United Kingdom, instead of receiving anything from South America.

2912. Well, that will not give the coal steamers a return freight?—No, certainly not.

2913. Do you see any other kind of freight that you could get in return?—No.

2914. Then, as regards India, what are your views there?—We are doing a large business with India now, and we find that there also we are up against a very difficult proposition. The prices have gone down to a great extent. As is well known to you, the freight market of the world has gone down to a great extent on account of indifferent business, and unless we can produce our coal cheaper, our chance of extension in the Indian market is not very great, although we have been doing very well.

2915. But have not the lower freights now prevalent given you cheaper freight from here to India?—Yes, but not commensurate with the lower price that we are expected to accept in India under existing conditions. We were able to get better prices last year and the year before than we are able to get this year. The Ceylon market we are doing business with. We supply the railways there, but as Mr. Williams's report will tell you, we are only getting half the business we got a year or two ago. The Cape Town market has been attenuated on account of the fact that large contracts have been made for Transvaal coal owing to the reduced railway rate. It seems to me that Singapore and the other Far East ports that we have done business with are not giving us the same amount of encouragement that they did. A reduction in the railway carriage would not bring about the needed result. I do not see that we can expect a very great reduction off the rate we have now.

2916. So your principal hope is that the coal against which you compete will get dearer while yours will get cheaper freights?—Yes.

2917. What do you say in regard to the development of trade with the Australian steamers?—Well, that is developing. I heard Mr. Williams's evidence, and I must go very much on the same lines. The larger-sized steamers coming from Australia are increasing the demand for bunkering purposes, and

they find that they are able to do very well by entering this port, and therefore it is necessary that this port should not be behind others in its deep graving dock that we are very anxious to get here, and which I understand Cape Town is also anxious to get. But in regard to our trade, we are getting increasingly large steamers here. Our depth of water is now about 35 feet, and this can be increased. When I first came here we had about 6 feet. We must have a large graving dock to render it possible for us to find the necessary facilities for docking these very large steamers, which I expect will increase in size as time goes on, quite apart from the Imperial mail contract, which you are so anxious to see arranged right through from Australia to Europe. Therefore I hope that we shall have the necessary facilities in that direction. The Australian trade has been spasmodic owing to strikes in Australia, and sometimes steamers were taking supplies here sufficient to take them to Australia and back again here, and that gave an enormous fillip to our business three or four years ago. We shall no doubt increase our trade from Australia as the size of the steamers increases, and steamers coming from Australia will, I feel certain, continue to call at Durban, whatever facilities Cape Town may offer. The coal does not get broken up so much where it has not to be handled so frequently as it would have to be if bunkered at Cape Town. It means that the coal will have possibly nine handlings before it is bunkered in the steamer in Cape Town, when taken there from here by sea. I think that is about all I have to say in that respect.

2918. **(Sir Alfred Bateman.)** I understand you are chairman of the Coal Owners' Society?—Yes.

2919. Which is not the same as the Natal Associated Collieries?—No, but I happen to be chairman of both.

2920. There is a difference in the objects?—Yes. I founded the Coal Owners' Society five years ago to protect the interests of the industry as a whole, with regard to mining regulations and railway rates and things of that sort—quite apart from the commercial aspect of the industry.

2921. Is the Coal Owners' Association simply a combine?—The Natal Coal Owners' Association, or rather the Natal Associated Collieries, is the so-called mysterious combine that was referred to in the evidence in Cape Town.

2922. And the other is the Society that looks after the general interests of its members?—Yes.

2923. **(Mr. Campbell.)** What is the business of the Coal Owners' Association?—The Natal Associated Collieries?

2924. Yes.—The business is to try to improve the prices obtainable for coal generally, and to divide up the business among the members, and also to be able to supply the ships more quickly, and do away in some respects with this delay to railway trucks, because we can substitute coal—we have contracts with right of substitution. There are eight collieries in this combination, and if one coal is not available the other is offered for bunkering purposes.

2925. How many collieries are outside?—There are about eight producing collieries, some large and some small, outside.

2926. Has the effect of the Association been to raise the price of coal?—It has. Instead of cutting each others' throats by competition, we were able to offer a better grade of coal, to improve prices, and to afford better facilities than any single colliery, acting independently, could do by going into the market and trying to do bunkering business.

2927. In case one member of the society was unable to fulfil an order here at the port the other would take it on?—Yes. That is on the contract form—if one colliery is not able to carry out an order another coal is offered, so as to avoid delay.

2928. **(Mr. Tatlow.)** You said that one of the objects of your Society was to reduce railway rates; do you mean that you combine in order to get the best railway rates from the railway department, or that one colliery does not approach the railway department without the consent of the others?—No, it is a Government railway. When the Coal Owners' Society has any grievance, we combine to press that grievance home, but there is no fighting against one another. The rates are absolutely fixed by the Department.

2929. But I did not quite understand in what respect your Society worked in the matter of railway rates for the benefit of your members?—Here is an instance: they have made a special rate in favour of the Transvaal, and we join together for the purpose of getting what we consider to be our rights. Combined action as against individual action—that is what it amounts to; and also we endeavour to assist the Government in regard to information in connection with the coal industry. Our Society has become the centre from which the Government gets information which they require. Until the Society was brought into existence there was no organisation of coal owners, and Government got into the habit of consulting the Mine Managers' Association in matters of vital importance to the coal owners and often involving heavy expenditure for them. The formation of the Society has proved of benefit to the coal industry generally.

2930. **(Mr. Sinclair.)** Are questions relating to working in the mines generally fixed by the Society—wages, for instance?—We have not got that far yet. We find that we have to agree on that sort of thing. We have not had any strikes until recently. We agreed upon the rates that we would offer to settle the strike. We made uniform rates of wages for the miners.

2931. And your Society is able to discuss questions and differences that arise with your workers as one body now?—Yes, and we are also on the point of making our constitution stronger than it was before. It was not sufficiently comprehensive.

Durban, Tuesday, 24th March 1914.

Mr. H. Shadwell, Harbour Engineer, Captain J. C. Young, Port Captain, and Mr. B. H. Wisely, Chairman of the Durban Port Advisory Board, called and examined.

2932. **(Chairman.)** You are the engineer to the Durban port, Mr. Shadwell?—Yes.

2933. And you are in charge of all construction work?—Yes.

2934. Have you charge of the dredging?—No, that is under the charge of the Port Captain.

2935. You have been good enough to answer the usual questions here which we have asked in the case of all harbours in South Africa,* and we are indebted to you for your answers. Will you kindly explain the new scheme which you now have under consideration? *The following description is taken from a memorandum subsequently supplied by the witness:—*

The scheme now suggested is arranged on the bay principle giving berthage for one ship only. It allows for the increase in size of shipping, the proposal being to construct the jetty work in ferro-concrete, which also lends itself to deepening of the berth which, in the present instance, has been laid down at 40 feet below low-water mark.

The face line originally proposed by the experts on harbour matters has been nearly adhered to, such alterations being made as to admit of the working in of the graving dock. The proposal as it now stands is to have berthage for 14 vessels, 12 of which are 700 feet in length, and one long berth on the old quay wall plan of 1,800 feet, whilst a further berth in the vicinity of the graving dock will be available either for rough goods or timber, and when not engaged for a ship waiting its turn to go on the dry dock. It may be suggested that a berth 700 feet long is not sufficient

* *See* Appendix V., A., pp. 157–160.

for the rate of progress in shipping, but I would point out that with the introduction of ferro-concrete staging the extension of any of the berths is easily accomplished and, therefore, ferro-concrete lends itself to the deepening of a berth which can be effected without endangering the superstructure far better than in the case of a quay wall.

Dredging.—The amount of reclamation necessary is large as it will be essential that the area beyond that allowed for harbour purposes should be raised from sand-bank level to, at any rate, the level of the esplanade, and a considerable amount of dredging to give 40 feet of water will also be necessary, but it is not absolutely necessary that the fairway be dredged to the full depth now, although it is advisable to dredge out the maximum depth required at the jetties.

2935A. What is the total cost of this scheme?—Exclusive of the graving dock it is nearly 2,000,000*l.* The graving dock depends upon the depth of the sill; but I do not think it would be a higher figure than three-quarters of a million.

2936. That is assuming a length of 1,000 feet and a depth at low water of 35 feet?—Yes, and a breadth of 110 feet.

2937. And to carry that from 35 feet to 40 feet will cost about how much?—No increase of cost. It will be 35 feet at low water and 41 feet at high water.

2938. How long will it take to carry the graving dock scheme through?—I should say from five to seven years.

2939. And if the new harbour extension scheme was fully carried out, what accommodation would you have?—We should have accommodation under this scheme for 14 large-sized vessels.

2940. You mean with a length of 700 feet?—650 feet under present conditions, with a possibility of extension.

2941. And what would the draught be?—40 feet.

2942. With a shed alongside each vessel?—Yes.

2943. What landing appliances would be included?—Electric cranes.

2944. And if that scheme was carried through according to the estimates you have given, you would have a 40-feet draught. What would be the draught outside?—It would also be a 40-feet draught.

2945. That would be included in the estimates?—Yes, included in that sum.

2946. So you would have access over the bar and up the channel to these new quays with 40 feet of water?—No, the amount I have given you is 40 feet in the vicinity of this new work, and the way I propose to arrive at it is to dredge out each of these embayments to 40 feet right off, and then, as the shipping requires it, to dredge the remainder in the ordinary way, that is under maintenance, but the new work would be done under construction so that 40 feet outside would not be obtainable at the same time as this would be done unless the shipping warrants it.

2947. Is the 40 feet obtainable with your present dredging plant or is your present dredging plant fully occupied in keeping your present depth?—**(Captain Young.)** We have plenty of time for development with the present plant.

2948. Your present plant is adequate to keep your present level intact and to improve?—Yes.

2949. At what kind of rate would you improve?—We can get the 40-feet depth as quick as they build the wharves.

2950. Without any addition to your present dredging plant?—Yes, without any addition.

2951. Have you included the present channel in with the depth?—Might I mention that we have two dredgers capable of reclaiming and deepening, and these two dredgers are at present laid up. We could put them into commission at any time we require them. We have laid them up for economy.

2952. Taking your present channel, what depth of water do you get on the bar?—At present we get 36 feet at low-water springs.

2953. That would give you 42 feet at high-water springs?—Yes.

2954. Why is it that the White Star ships are not allowed to go out with a greater draught than 31 feet?—I think they have a very hard and fast rule as to safety.

2955. You consider then that it would be safe in favourable weather to take a ship out drawing 35 feet?—To-day the "Ceramic" should have gone out drawing 35 feet with perfect safety.

2956. With a margin under her keel of what?—Inside 2 feet and outside over the bar about 5 feet or 6 feet.

2957. What additional allowance should be made on the bar for a sea running?—I generally reckon for large ships from 3 feet to 4 feet.

2958. Is that in calm weather?—Even with the scend. Of course, with only 4 feet under her and with a heavy sea running at the bar there is a chance of bumping.

2959. You want 4 feet for the scend plus the ordinary allowance between the ship's bottom and the sand?—Yes.

2960. But you say to-day that a ship drawing 35 feet of water could with perfect safety have come in or gone out?—Yes.

2961. At high tide?—Yes, at high tide.

2962. I notice in your soundings that there is a spot shown where there is a bank and only 31 feet of water?—It is about 31 feet to-day.

2963. With what object was that left?—There was always an idea of having a bigger margin at the bar than inside because inside the ship is lying in smooth water.

2964. Then what is the lowest point at the bar?—36 feet low-water springs.

2965. Is there any difficulty in removing those two shallow spots?—No, there is no difficulty, we can remove them easily, but we have quite sufficient water for the ships.

2966. Is that quite so? Did not to-day rather show that it was not so?—Certainly, if larger ships are coming, as appears very likely, we will have to increase the depth, but at the present time we have not the wharfage to accommodate these large ships. There is only one deep-water berth, 38·6 feet.

2967. It comes to this, that the increase in the draught of ships has proceeded faster than you expected?—Yes.

2968. But that having occurred, it is quite easy for you to catch up?—Yes.

2969. I understand there is no technical or dredging difficulty in getting this channel down to 40 feet or even more, if necessary?—Yes, we could get it within a year.

2970. And really the same applies to a great deal of the water in the bay?—Yes.

2971. There is no rock, it is merely a matter of dredging capacity, I understand?—Yes, inside the bay it is all soft stuff easily removable.

2972. Are there any points you would like to bring before the Commission besides those?—**(Mr. Shadwell.)** No, except that I am strongly of opinion that it is most essential we should go on these lines. It is very necessary that we should have a graving dock here.

2973. In regard to that point, are you confident that you would have sufficient demand for graving dock accommodation?—**(Captain Young.)** At the present time we have 23 applications from boats that want to dock almost at once. The "Dover Castle" makes it 24, and she will block the way for the next month or six weeks.

2974. That looks as if you will have a great many customers when you get the dock?—Yes. There is, for instance, the vessel "Arphagus." If she could have docked she would have gone in to-day. The floating dock, of course, is not large enough to accommodate the large steamers that are now coming in.

2975. Her maximum capacity is 8,000 tons dead weight?—Yes, and as the dock grows older that capacity will be decreased.

2976. What length of vessel can she take?—About 470 feet. The steamers that are now being built for

the Eastern trade, both German and British companies, are larger than we can accommodate on the dock.

2977. I believe there was a large ship belonging to the Union-Castle Company which sustained slight damage at Delagoa Bay the other day?—Yes.

2978. Where could she have docked if the damage had been severe?—She could not have docked anywhere except at Simonstown; if permission of the Admiralty can be obtained, that is the nearest place.

2979. And northward where is the nearest port?—There is absolutely no dock on the east coast. Bombay would be the nearest place. A vessel like the "Ceramic" cannot be docked here in South Africa. Neither could the "Persic" or the "Medic" or the mail boats, except in the Simonstown dock with permission of the Admiralty.

2980. **(Sir Alfred Bateman.)** Do you think you will get increased revenue for this expenditure?—It is an increasing revenue from year to year.

2981. But what increased revenue could you get in consequence, first of this dry dock, and, secondly, of all this other expenditure?—I think we are bound to have increased revenue.

2982. But have you any sort of estimate? You seem to have made out a wonderfully strong case for the dock, but I am asking in regard to this expenditure of 2,000,000*l.*?—That is for increased wharfage and the dock will be nearly another million. We want to be an up-to-date port whether it pays or not.

2983. But it does not rest with you, I suppose, it goes to the central authority, the Government?—Yes.

2984. And will the upkeep from year to year be increased by this expenditure?—The cost of the floating dock will be increased, but not so much as you would think, because the crew from the graving dock can also work the floating dock in the same way as we work the floating dock from the slip to-day, because we are not docking ships every day. One crew can almost work the two. The upkeep of the floating dock will, of course, increase with age.

2985. In regard to the two docks being used fully, I suppose there is a bit of chance about it. You may have a great demand at one time but not at another?—Well, nearly all this year we have had a demand all the time. Many ships have gone away in disgust because they could not use the dock. Some have gone to India and some to Australia.

2986. **(Mr. Tatlow.)** Do you find at present that your deep-water berthage is insufficient for the requirements. Does delay occur to vessels in consequence?—Occasionally, it does, especially with certain vessels. Some of the captains object strongly to lying aground and others do not mind. It very often happens that a vessel will lie off and wait for a deep-water berth.

2987. And it is an existing need that more deep-water berthage should be provided?—Yes.

2988. Is that floating dock of yours sufficient to dock the "Dover Castle"?—Yes, it will just take her.

2989. Do larger vessels ever present themselves than the floating dock can accommodate?—Yes, there have been vessels here that would have gone in if we could have taken them.

2990. Have you numerous applications for accommodation in the floating dock?—Yes.

2991. And you have only one floating dock at present?—Yes.

2992. Does delay occur to these vessels waiting for accommodation?—Yes; there is one waiting at the present time, and she will have to wait until the "Dover Castle" comes off.

2993. How long will that be?—About a month or six weeks.

2994. **(Mr. Sinclair.)** The expenditure already incurred on harbour accommodation here has been given as a little over 4,000,000*l.*?—Yes.

2995. And you have further expenditure in contemplation amounting to 2,000,000*l.*, and another million for a graving dock, and it is estimated I see, from the figures that have been given to us, that it will take about 50,000*l.* to deepen the channel to about 40 ft. Now will you tell us in how short a period this large and liberal expenditure which you have already incurred has been made? What period have you taken to find the 4,000,000*l.* that have already been expended?—**(Mr. Shadwell.)** The whole of the 4,000,000*l.* covers the outer works as well as the inner harbour works, whereas this proposal for 2,000,000*l.* is confined to the inner harbour.

2996. I wanted to find out in how short a time you had made this very liberal provision for the requirements of your harbour—the 4,000,000*l.* that you have already expended?—That has been since the commencement of the harbour.

2997. In how many years? I want to get the record of the expenditure which you found yourself in a position to make over a period of years in the past which has not been mentioned?—I think about thirty-five years, but the bulk of the work has been done during the last fifteen years, especially the quay wall work. In the eighties we only had one shed, "B" shed, and since then the shedding and quay wall work has gone on, that is in the last twenty years.

2998. During the last twenty years your community has found the bulk of the 4,000,000*l.* that has been expended?—Yes.

2999. It is the measure of enterprise that I wanted to get on record?—Yes.

3000. As regards revenue for the future, are you satisfied that the additional expenditure which is proposed to be made would be justified by increased revenue which you may reasonably look for?—Well, it is rather a difficult question to answer. But it is very evident that we must have graving dock accommodation for the shipping which is bound to come here before very long, whether it provides more revenue or not. And the next point is, if the shipping increases, we should get a revenue commensurate with the outlay, which need not all be put in hand at once. I should point out that the construction work will be carried out in the ferro-concrete system, which admits of extension in any direction.

3001. Is the harbour paying its way now?—Since Union the harbour has been mixed up with the railways, and there was recently a Commission appointed to go into this question. The result of that Commission I am not prepared to lay before you to-day because I do not know.

3002. **(Sir Alfred Bateman.)** The revenue is given as 219,000*l.*, and the expenditure 321,000*l.*?—**(Mr. Wisely.)** We have just had a Commission appointed which has been going into the question of the Union Harbour tariffs and the charges made at the various harbours in South Africa with a view to making the harbours self-supporting, and a tariff of charges is being drawn up.

3003. **(Sir Jan Langerman.)** I should like to ask whether the cost of dredging and reclaiming is added to the 4,000,000*l.*?—**(Mr. Shadwell.)** It is included in that.

3004. In regard to the ground that you sell after reclaiming, how is that treated? Does it come off the 4,000,000*l.* or does it go to revenue?—We do not sell.

3005. What is the graving dock accommodation south of the line and eastward from Cape Town?—**(Captain Young.)** There is a small dock at Mauritius and a small one also at Madagascar.

3006. Cape Town has accommodation also, has it not?—Yes, but it is smaller even than our floating dock. It could not take the "Dover Castle." I am not sure of the size.

3007. If you built a good large-sized graving dock here you would have practically two docks south of the line?—Yes, if we built one with a length of 1,000 feet.

3008. And that would attract shipping here, you think?—Yes, I think so.

3009. What is the condition of your coal supply now? In August last you had dozens of vessels hung up, and some had to go away. What is the position now?—The position to-day is that we have plenty of coal and few vessels.

3010. How has that condition been brought about?—I think it is a reaction from the strike; at that time it was said there were no trucks.

3011. Have you had more trucks since?—Yes, more trucks are coming every day, being imported.

3012. How is it you allow coal to be stored in trucks when you can use them on the line?—We have not storage room enough, and we have not got the ships to put the coal in. Consequently, an accumulation of coal remains in the trucks.

3013. Is it not a bad principle to store coal in trucks?—It is admittedly a bad principle, but as the coal traffic of the world, so far as I know it, is stored in trucks at the port of shipment, it must also be admitted that unless the coal traffic in South Africa is given similar facilities it cannot be expected to compete.

3014. We find in Johannesburg that the mines run short of coal for want of trucks owing to the fact very largely that you have the trucks down here storing coal?—When there is an accumulation of coal down here they stop sending more coal, they stop supplying trucks to the mines. Day after day the railways ask the different mines what they require in the way of trucks for ships in the harbour and those that are expected, and they supply trucks accordingly.

3015. You had a strike in August. How did you manage then?—We managed pretty well through the strike, but towards the end we were short of coal and short of trucks, and then they started sending coal down towards the Cape more liberally than here. Some steamers cancelled their orders and brought coal from England.

3016. Would a duplication of the line keep a constant supply of coal here?—Yes, and also reduce the rates.

3017. Are they doubling the line?—Yes, a portion of it.

3018. Will that assist you in keeping a constant supply of coal here, because it is important that you should have a constant supply?—I do not think it would be so good as giving us another line. It would cheapen the rates, and if we had cheap rates and cheap coal we could bunker more steamers.

3019. You are well supplied to-day, and you do not see any immediate shortage?—Not just at present, but how long that will last I do not know. It is only perhaps a reaction from the late strike.

3020. You anticipate no difficulty?—I am afraid it will be the same again in a short time when the ships come in.

3021. But you do not anticipate another strike?—No, but we cannot get enough trucks. There was a steamer which left here yesterday with 1,000 tons of coal from England for Mauritius, and a few weeks ago there was another for Cotts and Company which came out with a cargo of coal. It was going to New Zealand, but when our strike broke out it called here for bunkers and brought the coal here.

3022. They ordered coal on account of the strike?—Yes, they bought it on the sea, but when the ship arrived the strike had finished, and they had no use for the coal. We took some of it here, and some of it went to the Cape.

3023. **(Mr. Bowring.)** What are your dry dock charges here?—5*d.* a ton for the first 1,000 tons, 5*d.* a ton for the second 1,000 tons, and 3*d.* a ton for the balance. That is for the first 24 hours. That is on the gross tonnage. Then 3*d.* a ton per day afterwards.

3024. How has your dry dock paid, so far?—I think it just about pays expenses now. It pays better than it did. For the first three years or so it did not pay.

3025. I suppose you have been developing your business year by year, and now you have more than you can do, even for the vessels of the size which it can take?—Yes.

3026. You have a great deal of business of the size which the dock can take, have you not, and which you cannot deal with?—Yes.

3027. You have made no estimate, have you, as to how your new dock, if you had it, would pay if you spent one million on it?—No, but in view of the large size of ships that are coming out here it is essential that we should be equipped with a dry dock capable of taking the largest ships, especially as there is no similar dock within 1,000 or 2,000 miles.

3028. I suppose you anticipate that eventually a big dock like this will pay?—Yes, in the long run, it will, because more and more ships will use it, and if the dock was fitted with a pontoon in the middle we could put smaller ships on at the same time.

3029. You mean if it was built in two divisions?—Yes.

3030. I take it that you justify your demand for this new expenditure, not only on the ground that it will pay, but that you have shown in the past enterprise, foresight, and courage in providing good harbour facilities, and you want to remain in the front of the battle?—Yes. In the past the ships have increased in size faster than we have increased the capacity of the port.

3031. And apart from the question of payability you take a great deal of pride in your harbour?—Yes, the whole of the expenditure would not come in one year, the work would go ahead gradually, but it is certainly necessary that we should have more deep-water berths at once, and a dry dock.

3032. **(Mr. Tatlow.)** In the contemplated additional expenditure, has anything been provided for the extension of the coal bins so as to avoid that disastrous delay with the railway coal wagons?—**(Mr. Shadwell.)** Not under the scheme submitted, but provision has been made and passed by the House of Assembly for an extension of the coal plant, and this plant is now being made.

3033. Is it not obvious that to keep coal in wagons is a very extravagant proceeding?—Yes, but it cannot be helped.

3034. But you say it is contemplated to provide additional bins?—No, not additional bins but additional plant. The coaling appliances will be practically doubled. That will mean quicker handling.

3035. Will that mean a lesser number of railway trucks under load?—Yes. **(Captain Young.)** It frequently occurs when we are busy we have 10 or 12 ships lying out at the buoy waiting for coal. If we had extra wharfage and the other appliances necessary we could have got rid of the ships and liberated the trucks.

3036. But does not the merchant have to pay 2*d.* a ton per week for storage of the coal in the bins?—**(Mr. Shadwell.)** Yes, but the great thing is to avoid breaking the coal so much. It is better to put it straight into the ship. The more handling it receives the smaller it becomes.

3037. You state that the interest on capital is 140,000*l.* a year, and the maintenance charges 160,000*l.*, or a total of 300,000*l.* Does that maintenance charge include all working charges as well as what is ordinarily understood by maintenance?—Yes.

3038. I mean wages and everything connected with the working of the harbour. What does that 160,000*l.* include, roughly? Does it mean working expenses as well as the maintenance of machinery, and so on?—Yes. The harbours as a whole show a loss of between 240,000*l.* and 250,000*l.* a year.

3039. **(Sir Alfred Bateman.)** This Commission, which you have referred to, may recommend an increase in rates to make it balance?—Yes, we are increasing the wharfage both outward and inward.

3040. Is there a margin for increase without keeping vessels away?—The wharfage is paid on the goods, not by the vessels.

Durban, Wednesday, 25th March 1914.

Mr. Alexander Harvey Rennie, Shipowner and Shipping Agent, called and examined.

(*For evidence of this witness on "Cable Communications," see page* 80.)

3041. **(Chairman.)** What is your business, Mr. Rennie?—I am a shipowner and shipping agent.

3042. I believe you have devoted particular attention to the question of a graving dock at Durban?—Yes.

3043. Are you connected at all with the ship repairing business?—No.

3044. We had an opportunity yesterday of visiting the harbour and of seeing the proposed location of the graving dock, and also of hearing from the harbour authorities particulars of the work proposed to be undertaken, and their arguments tending to show the urgency of the scheme. We shall be glad to hear what you have to add to that?—I have prepared this paper, which I will read if you wish.

The paper was as follows:—

Graving Dock, Durban.

Durban is most excellently situated as regards its geographical position for the site of a graving dock. It has first of all a magnificent natural harbour, capable of taking in ships of the deepest draught and largest dimensions at all states of the tide, and, in case of necessity, also by night. Perfect shelter is given by the entirely land-locked nature of the harbour. Suitable foundations have been found by boring experiments which have been conducted by the Union Government, and the proposed dimensions of the dock are as follows:—

1,030 feet in length, 110 feet broad at entrance, 41 feet deep on sill at high water spring tide or 35 feet at low water.

These dimensions will make it the largest graving dock in the world, with the exception of the Gladstone Dock at Liverpool.

Owing to this port's geographical position in the direct line for traffic from India, Burmah, China, Japan, Straits Settlements, Mauritius, and Madagascar, to America, North and South, and *vice versâ*, it is practically one of the most important ports on the ocean highway. There is no dry dock accommodation from Durban right up the east coast of Africa, and as Durban is the terminus of the mail service from the United Kingdom, and also of the East African lines of steamers run by the Union-Castle, British India, and German East Africa Companies, it is uniquely situated for supplying the wants of "all round Africa" shipping trade. It is also the first port of call for all steamers homeward bound from Australia *viâ* the Cape of Good Hope route.

Salisbury Island in the centre of the harbour belongs now to the British Admiralty and is bound sooner or later to become an important naval station, and the possession of an up-to-date graving dock, capable of taking the largest class of war or mercantile steamer afloat, or likely to be afloat for many years to come, will be of the utmost advantage to the Empire at large.

Durban is possessed of four or five large ship repairing and engineering works, run by private enterprise, in close proximity to the proposed site of the dock. These works are fitted with the latest and most up-to-date machinery, carrying large stocks of repairing material, and are capable of supplying all the requirements of ships requiring help and assistance.

The proximity of Durban to the Natal coalfields is also a unique advantage, and the Admiralty authorities can always rely on Durban as being a certain and efficient base of supply, protected by batteries and offering a fair haven in time of war. There is a practically unlimited supply of water.

Owing to the nature of the borings, it is expected that the graving dock of the dimensions mentioned will be built at a comparatively cheap figure, and if given out to private enterprise the Union Government will have no difficulty in getting the dock in being in a very short time. My firm have been Lloyd's agents here for the last 24 years, and underwriters have frequently expressed their appreciation of the work that has been accomplished with the present floating dock, and the other facilities of the port generally.

First-class harbours should have a depth of 45 feet, and I think this could be provided at Port Natal if required. As it is, the depth of water we have at present at Natal makes Durban a port very high up in the category of the world's ports.

The Thames will only have an effective depth of 30 feet at low water when the present dredging programme is completed; and Natal can take larger ships even now than can go into the Port of London.

Southampton has an effective low water depth of 35 feet, the Mersey Channel 30 feet, and in the lower portions of the Tyne 30 feet; in the Clyde up to Glasgow the low water depth is about 23 feet.

The present depth at Port Natal enables it to take any tonnage afloat with the exception of the largest liners, and those are very few and far between. Last year, of all the tonnage owned and registered in the United Kingdom, there were only two ships of 40,000 tons and over, four of 30,000 tons and over, and eight of over 20,000 tons.

It will thus be seen what a small proportion these leviathans bear to the enormous mercantile tonnage of the country. In my opinion and that of many others the extreme limits of size, at least for a very long period, have been reached.

I have to add some particulars as to the machinery and plant which one private engineering works here has which may be of interest to the Commission.*

3045. What do you say about that?—As showing the plant we have and the work we can undertake here at present.

* Note.—*The particulars were as follows:—*

Particulars of biggest machinery and plant and work which can be undertaken:—

Machinery and Plant.

Punching and Shearing.—Direct steam-driven punching and shearing machine with large gaps. To punch 1¼-inch holes and shear 1¼-inch plates.

Lathe.—27 feet between centres, 9 feet diameter face-plate, 27-inch centres.

Hammer.—One ton steam hammer.

Planing.—Machine to take 9 feet by 4 feet.

Drilling.—Radial pillar drilling machine, 6 feet radius; also electric drills.

Boring and Milling.—Large horizontal boring and milling machine.

Slotting.—Slotting machine, 20-inch stroke.

Bending.—Direct steam-driven bending machine: length of rollers, 12 feet.

Riveting.—Hydraulic and pneumatic riveters.

Oxy-Acetylene cutting and welding plant.

Work.

Castings in iron up to 8 tons.
Castings in brass up to 1 ton.
Largest forgings turned out:—
L.P. piston rod with crosshead, weighing about 30 cwt., and crank journal about 2 tons.
Coppersmith's work of all kinds, including main steam pipes of any size.
Material in Stock:—
Steel blooms up to 16 inches square.
Steel slabs up to 20 inches by 10 inches.
Round mild steel bars up to 9 inches diameter.
Steel plates up to 26 feet by ¾ inch thick.

3046. What does this tend to show?—That we can pretty well tackle any ordinary job that comes along in the way of repairs.

3047. Provided you have a dry dock?—Yes.

3048. Then this plant is now used largely in the floating dock, I suppose?—Yes.

3049. Can you tell us anything regarding the amount of custom which the graving dock, if established, would obtain?—Well, of course, the kind of custom naturally depends chiefly on the amount of casualties that occur. Naturally, no shipowner repairs his ship anywhere except in the United Kingdom if he can possibly avoid it, because the cost of repairs abroad is always larger than at home. But locally it is absolutely essential for the Administration to have a graving dock to treat their own craft. And then there is always a constant procession of ships from all parts of the world passing through here, and undoubtedly, in event of any casualties occurring on the south-east coast, the underwriters naturally prefer to send the vessels up here. I have been Lloyd's agent here for nearly a quarter of a century, and we have done a large number of big repair jobs at Durban, and last time I was at home, the secretary of Lloyd's expressed his extreme pleasure at the way the work was done here in Natal, and said that in the event of any big casualties occurring on the south-east coast it was Durban that they would look to.

3050. Have Lloyd's made any official statement regarding the desirability of a graving dock here?—No, I do not think so.

3051. Are you empowered to speak for them?—Yes.

3052. And as representing Lloyd's, you express the urgency which this matter demands?—Yes, it is extremely urgent, because we are situated in a part of the globe commanding a very big sphere of ocean traffic, and I do not know of a dry dock anywhere in Africa except at Simonstown.

3053. Now comparing the desirability of a dry dock here as compared with Cape Town, which, I suppose, is the alternative, what have you to say?—They have already got the naval dock at Simonstown, and it would be the height of stupidity to put two docks on the coast in touch with one another. We are nearly 900 miles further north here and between here and the Cape is the stormiest part of the ocean off the South African coast, and, of course, in the event of any casualty occurring north or east or south of us, we would rather bring them up here than take them round the Cape.

3054. How far are you here from Aden?—I could not give you the exact distance. I should say we are somewhere about 3,500 miles, speaking roughly.

3055. For ships that have casualties at Aden, or in the Red Sea, the nearest dry dock is where?—I understand that there is a floating dock at Aden, but there is no dry dock in Africa except at Simonstown.

3056. What is the dock accommodation at Bombay?—Very good for all kinds of repairs.

3057. So that Bombay would be your limiting factor on the north?—Yes.

3058. And Cape Town would be your limiting factor on the south?—Yes.

3059. You would cater for the zone between those two points?—Yes.

3060. **(Sir Alfred Bateman.)** Do you consider the zone more than ordinarily dangerous?—Yes, the south-east coast of Africa is exceedingly dangerous on account of the strength and uncertainty of the currents.

3061. So that would be the reason why you claim a dock here?—Yes.

3062. More than any other site?—Yes, we have not only got very strong and uncertain currents, but practically, to a great extent, an uncharted coast, especially to the north of us.

3063. **(Mr. Sinclair.)** As a shipowner, and representative of Lloyd's, are you able to say whether the development of the port of Durban, and the expenditure that is being made upon it, comes up to the reasonable requirements of shippers?—Yes, within the last ten years there has been a marvellous development here.

3064. Within a comparatively short number of years there have been expended large sums on the harbour and it is contemplated expending further large sums in deepening and improving the harbour?—Yes.

3065. You mentioned in the statement that you have given us that in Port Natal a depth 45 feet could be provided, if required?—Yes.

3066. And as apposite to that you call attention to the effective depth in the Thames of only 30 feet at low water?—Yes.

3067. **(Mr. Tatlow.)** In regard to the development of the harbour here, do you look upon the graving dock as the most pressing necessity?—Yes.

3068. And money should first be expended upon that before other developments are taken in hand?—Yes, other developments are so far pushed ahead just now that what we want is a graving dock to complete our requirements.

3069. **(Mr. Lorimer.)** We saw the floating dock yesterday with a ship under repair: does that belong to the harbour?—Yes.

3070. Is that the only existing means of repair in Durban?—Yes.

3071. As regards the statement you have put in of the machinery and plant which you have here: is this the total equipment of your harbour for the repair of ships?—No, it is the equipment of one of the private firms.

3072. Are they able to do much work?—Yes, we have been able to tackle any work up to now.

3073. Because this is a very imperfect equipment, you know?—Yes, it is far from what it might be, of course.

3074. I hardly see how they can do anything useful with this?—We have done a great deal of work so far.

3075. Do you happen to know if this single lathe is the only one they have?—No, they have others, smaller ones, and this is only one repair shop in town.

3076. So that in addition to the Government equipment, whatever it may be, you have several other shops where repairs can be effected?—Yes.

3077. But only repairs such as do not involve going into dock?—No, we can undertake big bottom repairs. We have done some very large jobs.

3078. But they would involve going into dock?—Yes.

3079. And those people who have not the dock can only do repairs that do not involve going into dock?—They are all allowed to work in the dock.

3080. Do they pay rent to the Government?—The ship pays a rent for going on to the dock.

3081. In this memorandum which you have circulated this morning you give the dimensions of the proposed dock: is that seriously contemplated?—Yes, those are the dimensions of the dock that the Government now propose to build here.

3082. Has there been a bill passed through Parliament sanctioning its construction?—They have sufficient money to pay for the cost of boring, which has been done. The first part of the estimates was 4,000*l.* to pay for the cost of boring.

3083. Provision has been made in the estimates for part of this work, so it is certain to go on?—Yes.

3084. Well, that is satisfactory, because these seem good dimensions. I am glad to see that you find from the nature of the boring that it will be quite a cheap dock as regards work?—Yes, the engineers say it is to be quite a cheap dock, with an excellent foundation.

3085. And you say there is no difficulty in providing a depth of 45 feet, if required?—No.

3086. **(Chairman.)** Regarding the depth at which it is safe to bring vessels in or out of the harbour here, have Lloyd's got any specified minimum?—No, it is all left to the discretion of the Port Captain; he is the one who is responsible for taking ships in and out and all steamers on arrival have to notify him of their draught, and he decides when to take them in and out.

3087. So the captain of the ship is absolved from responsibility?—Yes, to a certain extent. Of course, it is compulsory pilotage here, and a captain would never dream of coming in if the Port Captain said it was not safe, and, of course, the pilot would not be put on board.

3088. The responsibility is all on the Port Captain?—Yes.

TRANSVAAL.

Pretoria. Monday, 30th March 1914.

Mr. H. R. ABERCROMBIE, member of the Pretoria Chamber of Commerce, called and examined.

3089. **(Chairman.)** You are a member of the Pretoria Chamber of Commerce?—Yes.

3090. You have devoted special attention to the subject of railway transit?—Yes.

3091. Will you kindly state your evidence?—The question which I should like the Commission to consider is that of making the fullest possible use of the port of Delagoa Bay, from a South African and Imperial point of view. The distance of this port from Pretoria and Johannesburg makes it very useful indeed to the development of the Transvaal. And there is the feeling that a great deal more could be made of it than is done at the present time.

3092. Could you give the distances?—Delagoa Bay is 349 miles from Pretoria and 367 miles from Johannesburg. I might mention here that some years ago an investigation was made into the question of the possibilities and advantages of the various ports, and Mr. Conacher came to this country and ran a considerable number of trial trains in connection with the investigation. He was an expert on railway matters. Now, as a result of that inquiry, it was proved that under certain conditions this port was of much more economic value to the development of the Transvaal than the others. Under certain conditions, Durban was also a favourable port, and under other conditions there were certain classes of goods which could probably be conveyed from Cape ports economically, because in regard to this question one has to take into consideration the question of freight, and the freight is slightly higher to Delagoa Bay than the other ports. Now, we submit that in the interests of the economic development of this country everything should be done at the cheapest possible rate, because that policy will in the end have the best results for the whole of South Africa. If we can, for instance, develop this interior by getting cheap haulage of iron goods and hardware and similar things requisite for our development, we shall be able by the profit we are making in that direction to buy other goods, produce, and so on from the other Colonies, and they will, therefore, receive a greater amount of benefit in that way than they can possibly get by snatching any amount of in-transit trade on the railways. I am pleased to say from observations made recently that that view is beginning to be more taken by the people at the coast than formerly, and they recognise that everything which will assist in the development of the interior will ultimately be of benefit to the coast ports, and that the prosperity of the inland Provinces will benefit them much more than snatching a five or ten per cent. increase on goods sent over a particular line to inland destinations. Now, the proportion of that line to Delagoa Bay which we do not own is very very slight; it is only about 60 miles from Komati Poort or Ressano Garcia to the port, and taking into consideration the vast amount of money invested in railways in South Africa it is essential for us to make as much profit as we can out of the best proposition we have got. It seems to me that it is absolute folly for us to carry goods over any of the other lines which we can carry much cheaper from this particular point, and I think it is greatly in the interests of this country that we should seriously consider this, and it should be the policy of the Imperial Government to make use of that port. And further, I think the Portuguese Government is not so keen in developing their port when they feel that they can only hope to cater for a very limited section. Even the present division of traffic may be altered and made less, and it may not pay them to give such good facilities as they do at present. In short, I think that the present system is against Imperial and South African interests.

3093. How are the proportions of traffic divided between the various ports at the present time?—55 per cent. is the maximum which is allowed to Delagoa Bay—that is Transvaal traffic. When I say Transvaal, I should explain that there is a certain zone—the competitive area it is called—and that the traffic is allocated in these proportions:—55 per cent. maximum to Delagoa Bay and 45 per cent. to the Union ports.

3094. Are Pretoria and Johannesburg treated as one competitive area?—Practically, yes. Now, Sir, you can see at once that the working of this arrangement is a most awkward procedure. When the traffic gets beyond 55 per cent. or drops below, there is a great amount of manipulation necessary so as to bring the proportions to what they should be.

3095. What do you mean by manipulation? Alteration of the rates?—Yes. Meetings have to be held and discussions with the commercial community. If you have goods landed at a certain cost, that cost may vary at any time owing to the rise and fall in the percentage, and we think it is absurd and unbusinesslike.

3096. What is the alternative?—We advocate running each port on its merits, whatever the proportions may be.

3097. With a mileage rate on the South African railways?—Well the question of rates is a very intricate one as you know. The question of rates would have to be settled by experts. There is so much to be said on the subject of the bulk of the goods. As I said, also the questions of freight are very complicated, and it would take up the time of the Commission too much really to enter into questions of that kind in detail.

3098. I understand you want the abandonment of the fixed proportion?—Yes, and the ports to be run on their respective merits.

3099. **(Sir Alfred Bateman.)** You are aware of the arrangement which was made with the Portuguese Government some years ago?—Yes, the Mozambique Treaty.

3100. That arrangement is terminable in about five or six years?—Yes, I believe it will be subject to amendment.

3101. It has been amended?—Yes.

3102. That arrangement was the first real attempt, was it not, to regulate the traffic to Delagoa Bay?—Yes, I believe there had been no serious attempt before. That was the agreement between the two parties.

3103. I was here seven years ago, and as regards rates, I was told here and in Johannesburg that the railway rate had much more effect on the price of goods imported than the sea freight?—Yes, it is higher.

3104. Is that so now?—Yes.

3105. The railway rate has been reduced?—Yes, but still the railway rates are higher than the freight rates—that is taken to a point in the competitive area.

3106. You are taking, of course, your own point of view?—Yes, Johannesburg and Pretoria, where the bulk of the goods go to.

3107. Do you consider that your railway rates are too high?—Yes, they are too high.

3108. They are too high as affecting your cost of living, but to compare them with other rates, what do they work out at?—They are considerably higher, I think, than in most other countries, even taking the case of Australia and Canada. Anyhow, the rates here are too high and one of the reasons, if I may be allowed to elaborate a little, is because the ports are not run on their merits. Our costs are too high on certain articles brought from ports where they should not come from.

3109. The natural railway rate from Delagoa Bay would be a lower figure than now?—Oh, much lower, if that port was worked to its fullest extent and we should be able to reduce rates considerably.

3110. The rates are constructed with the object of stopping more than 55 per cent.?—Yes, they are very high on that bit of line, and proportionately lower, owing to longer distances, on other lines.

3111. Do you know what the view of the Portuguese authorities is in regard to this arrangement?—Well, I had a conversation with the Governor there two or three years ago, in the course of which he told me that he was so dissatisfied with the state of affairs there that he had recommended the Portuguese Government not to proceed with any great developments at the port. He felt that they were so penalised as against other ports in the country that they were not justified in going to any great expense in connection with the port, and the port has, as you know, not been so successful as it might have been, because it is short of many handling appliances. They have certainly improved it during the last year or two, but it is not equipped to anything like the extent of the Union ports, and it never will be, I think, while it is under the present disadvantages.

3112. But they can deal with all your large goods, can they not?—Yes, heavy material.

3113. Of which you have, I suppose, enormous quantities for the mines?—Yes.

3114. To handle those goods requires very superior cranage?—Yes. I was thinking more particularly of the dredging operations, and the extending of their wharves, and things of that kind.

3115. So your desire is to get a reduction of rates from Delagoa Bay?—Yes.

3116. And do you want any reduction from Durban?—Yes. As I say, we want to get the very lowest possible rates we can from whatever port is concerned, consistent with the cost of haulage.

3117. But you are favoured in some ways, are you not—favoured in regard to the export of coal to the Cape, for instance?—No, we do not ask for favours. As business men, we want things to be run on economical business lines. We do not want a rate to the Cape which is so highly unpayable that the taxpayers who are interested may have to make up the difference, and we do not want an upward rate which has the same effect. We want everything to be taken into consideration—railway practice in regard to blanket rates, and so on. We want these rates worked out on proper lines.

3118. You want the rate that it costs as far as possible?—Yes ; consistent, as I said, with railway practice generally. Supposing you are growing a certain article in California that is wanted in New York, they give that a special blanket rate in America. It may not be quite a payable rate, but the article is wanted at the other side, and there may be a certain number of trucks available, which are not carrying goods at the time. They might justify a very low railway rate in that case, but a very low railway rate to Cape Town, for instance, will not be justified when you want those trucks for better and more payable traffic if that rate is unpayable.

3119. That rate is very low, is it not?—Yes, I consider personally that it is an unpayable rate, to Cape Town.

3120. So that you do not support it?—Personally, no. I personally favour the coal going to Delagoa Bay, and the Union Government chartering their own tramps to take the coal round to Cape Town. It is much more economical, and it releases trucks which are wanted here for other purposes. In fact, the coal mines have been grumbling that they are short of trucks, and are not able to work up to their full output.

3121. Then they are not as thankful as they ought to be for this low rate?—Well, not if those trucks are kept at Cape Town.

3122. So I gather that you want lower rates for goods generally, both from Delagoa Bay and Durban?—Yes.

3123. And you do not altogether favour these rather preferential rates that you have on coal to Cape Town?—We prefer that everything should be carefully worked out on its merits according to the American railway practice.

3124. **(Sir Rider Haggard.)** Under the existing arrangements with the Portuguese, what duty, if any, is charged on goods in transit to the Transvaal?—There are no special duties. The goods come in and have just the same benefits as they have under the Union ports. It is the in-transit traffic which they have to cater for in that way.

3125. What do you say is the exact difference in mileage between Pretoria and Delagoa Bay and Pretoria and Durban?—The distances are :—Pretoria to Durban 512 miles as against 349 to Delagoa Bay, Johannesburg to Durban 486 miles as against 367 to Delagoa Bay.

3126. **(Mr. Sinclair.)** Is your suggestion that at the expiry of the Mozambique agreement the system shall be changed, or do you suggest that it should be interfered with during its currency?—My suggestion is that it should be amended as soon as possible, during its currency.

3127. Would not that involve breach of faith in the absence of agreement?—There would have to be mutual agreement, of course.

3128. If the agreement were cancelled, there would have to be some *quid pro quo*, I take it?—We should have to consider all parties concerned in a fair manner.

3129. And revise it by mutual consent?—Yes.

3130. Is there a willingness, so far as you know, to revise the agreement at the present stage?—I think there is from all sides. I think there is a better feeling on that subject. Mr. Haarhoff, a representative of our Chamber, informs me that there is to be a revision of certain points during the next three months, so that apparently the agreement may be modified by mutual consent from time to time.

3131. Has your Chamber exhaustively gone into the question of what freights would be saved to Pretoria and Johannesburg if there were competition?—We have not got the exact figures. But the sum is very considerable. The figures, which would interest you, were got out by Mr. Conacher some years ago, and they would give you the percentage of the difference.

3132. Is there any statement of the position brought up to date?—No, unfortunately not. Owing to the unfortunate port jealousies we have had great difficulty in getting these figures, in fact we have had, to some extent, really to construct our own position. But there is no doubt a tremendous difference.

3133. Mr. Conacher's report is some years old, you say?—Yes, but the cost of running the trains remains the same, practically. If anything, they are improved in favour of the route, because there has been a deviation. Formerly, they had a rack engine from Waterval Boven to Waterval Onder, but they have now done away with that and they have consequently brought down the cost of that line.

3134. But you are satisfied that if the competition which this artificial system eliminates were not interfered with on these different lines it would benefit the

whole community?—I am satisfied. I also wish to say that I think Durban is unfairly treated, too, in some ways. There is an artificial rate charged to Mafeking, for instance. What I mean to say is that the beginning of that artificial system leads to many other artificial rates being charged.

3135. I do not want to go into any question of details between point and point, and that is why I ask the question in the form I do, that, broadly speaking, you think that the interests of the whole community would be served by a reconstruction of the existing arrangement?—Yes, I certainly think so.

3136. **(Mr. Garnett.)** I gather that you would not like to see any renewal of this arrangement as between the different ports dividing the traffic. You think it artificial?—I do.

3137. You would prefer to see the trade, having found the line of least resistance, follow that line?—Yes.

3138. You think that would tend to the development of the whole country?—Yes.

3139. And that being so, any loss of traffic that might ensue to some of the ports affected, would be more than made up by the traffic they would get through the development of the country?—Yes.

3140. And you are of opinion that in striving after these small percentages of trade it is something like grasping the shadow and losing the bone?—Quite so.

3141. You favour full and free competition between the ports, so that those most suitably situated for serving the country should get the bulk of the traffic?—Yes.

3142. And your belief is that that would tend to the prosperity and development of the whole of South Africa?—Yes.

3143. **(Mr. Bowring.)** Does none of the Transvaal coal find its way out *viâ* Delagoa Bay at the present time?—Yes. Delagoa Bay is the port at which the ships bunker. The object of coal going down to Cape Town is to catch ships which do not call at Delagoa Bay.

3144. Then ships do bunker at Delagoa Bay?—Oh, yes, it is a large and increasing business.

3145. The coal which finds its way down to Cape Town by rail has to go what distance?—About 1,000 miles.

3146. As against about 350 to Delagoa Bay?—Yes.

3147. And you claim, of course, that coal could be carried so much cheaper by steamer than by rail?—Yes.

3148. And if you had a free outlet by Delagoa Bay there would be great economies?—Well, of course, that is a matter of policy of the present Government. Mr. Burton told me that he was considering the question as to whether that would not be cheaper. I am in favour of that policy; they may also be in favour of it later on.

3149. It is under consideration?—Yes, I believe it is under consideration at the present time.

3150. **(Mr. Tatlow.)** If this agreement were not in existence which gives 55 per cent. to Delagoa Bay at present, and if the port had fair play quite unhampered, what would that 55 per cent. be transformed into, do you think?—I think, speaking roughly, it would go up to probably 70 per cent. It went up to 88 per cent. once before Union. But it depends to a great extent, also, on the freights and the efficiency with which the port is handled.

3151. What are the other ports concerned in the arrangement?—Port Elizabeth, East London, Durban, and Delagoa Bay.

3152. And Delagoa Bay is more favourably situated in regard to distance?—Yes, for the competitive area I mentioned

3153. And, naturally, Delagoa Bay would like to see that route unhampered?—Yes, naturally.

3154. The determination of the agreement would be in their favour, would it not?—Yes.

3155. Provided the Railway Department pursued its policy, which I believe it is pursuing, of equalising rates all over the country?—Well, of course, the Portuguese Government are in a very bad position in regard to that port, and that is where there is a good argument for the other ports in that way. We have them, so to say, as three cards against one. The Portuguese cannot put up their rates, so we have them in the hollow of our hands in that way; but at the same time I am asking only for fair business.

3156. It is to their interest to keep the rates as low as possible?—Yes.

3157. An unhampered condition of things would be best for them?—Yes.

3158. You said these rates were altered from time to time so as to keep as near as possible to the artificial arrangement of 55 per cent., and you said that some council arranged that. By whom is that arranged?—The Railway Board have meetings at which they arrange the rise and fall in the different rates to equalise.

3159. Does the Railway Board bring in anyone from outside to consult with?—They consult with the Chamber of Commerce, as a rule.

3160. Have the Chambers of Commerce a seat on the consultative Board?—No, they are consulted unofficially.

3161. But they are regularly consulted in regard to these rates?—No, not regularly, but at intervals. Sometimes a payment has to be made to equalise the rates. For instance, if the rate for Delagoa Bay drops considerably, then the Portuguese Government can claim, I understand, a cash payment, which is very much against their interests. We pay two ways then.

3162. Was it Mr. Conacher's enquiry that led to the adoption of these proportions under the agreement? Was he concerned in that?—No.

3163. What was his office?—It was extremely difficult to get at the real position. There was a tremendous agitation in connection with this question at one time, and an independent expert was asked to come and go into the whole matter.

3164. Was that before Union?—Yes.

3165. He was asked by your Government?—I think by the Transvaal Government, and the others were a party to it, because the report was submitted to each Government.

3166. I saw the report at the time. It was about ten years ago?—I do not think it was so long as that.

3167. **(Sir Alfred Bateman.)** In 1905, was it not?—I should say in 1906 or 1907. Because it was just about the time when the first Transvaal Parliament met. That is when I date it from.

3168. **(Mr. Tatlow.)** Something between seven and ten years?—Yes. But the feature of it is, of course, that the cost of working the railways has not varied very much. I mean there is no great alteration in the wages and the cost of coal and wear and tear. He went into this question very elaborately, and submitted a very good report. I wish we had some men of that type in South Africa. He was one of the best railway men I think I have ever had the pleasure of reading a report from.

3169. He is, unfortunately, dead now. You spoke of your rates being excessively high, and increasing the cost of commodities here and in Johannesburg?—Yes.

3170. Have you not participated in the large reductions made in the rates during the last few years?—Well, I do not think myself that those reductions were made in the best way. Supposing you take one farthing or one penny off an article, the consumer does not get much benefit, as a rule. I think it would have been much better if those reductions had been taken and applied to one or two articles which are in frequent demand, for instance, building material is one of our chief lines. The cost of buildings to-day is excessive, and timber and iron are two of the things on which, if we had an adequate reduction, we should see a great effect. The reductions have been spread over too many things and they have been manipulated in another way. Low rates have been given on certain lines. Certain people have preference. There are certain lines of produce in this country which are run at unpayable rates, in my opinion, and a good deal of

the profits which the railway have relinquished in this way has not gone into the pockets of the people in the interior but into the pockets of people who live far away from the interior, possibly. We have had to pay on that, and what is still more, our economic development has suffered. And that is not all. We have to pay something like half a million to the Consolidated Revenue Fund, being interest on money which we have already paid off on the cost of building our railways. We in the interior have to pay that. Of course, it is really killing the goose that lays the golden eggs. There is something like one million of money taken out of the interior of this country in the shape of these items I have given and the loss on the harbours, which falls principally on the inland community. Well, you can see in a community like this, it becomes a serious item in regard to our development. They do not realise that they are stifling the development of the country. If they did away with these anomalies we would go ahead so much quicker, and they would get the benefit in a different way.

3171. We understand from the General Manager of Railways that he is giving great attention to the removal of these anomalies. Preferential and unequal rates are what they are striving to rectify?—The General Manager of Railways is unfortunately in this position. He is subject to the Board, and also to the Minister, and the whole thing is somewhat subject to political influence. Take the question of these preferential rates: I do not think we shall get any relief from these or very little, because of the enormous political influence that can be used to keep those rates in force. The solution that we have advocated is that the Railway Board should consist of experts, who should not be interfered with, except by Parliament, and then it should be a very serious matter. Unfortunately, that is not so. We have the General Manager of the old Transvaal lines, the General Manager of the old Cape Government Railways, and a Natal representative, who has just recently made way for another Natal representative, and the Portuguese have also something to say from the outside. I submit to you, is that a business-like arrangement? That is our complaint. You cannot arrange these things as they should be.

3172. **(Chairman.)** You want commercial rates—not political—is that it?—Yes.

3173. Now what are the port facilities at Delagoa Bay; what draught of water?—It can take vessels at the quays drawing 30 feet, the entrance channel has only 21 feet at low water, but the tide varies from 6 to 10 feet and the channel is being deepened to 26 feet. The Port is a splendid one and well sheltered.

3174. In your evidence you put Johannesburg and Pretoria in the same boat?—Yes.

3175. But their respective distances from the two points are somewhat different?—Very slightly different. Johannesburg has a branch line from Witbank. Our line comes straight from Delagoa Bay, and theirs comes across. If you take the area from Springs to Krugersdorp, there is a small difference in our favour.

3176. You are slightly nearer Delagoa Bay, and how much farther from Durban?—Germiston would be the central point of the Witwatersrand area—we are about 35 miles.

3177. And in that case there is no short cut possible? You must go through Germiston to get to Durban?—Yes.

3178. **(Sir Alfred Bateman.)** Are the gradients to Delagoa Day favourable?—Yes, on the whole. The gradient is very favourable with the exception of one point—Waterval Onder to Waterval Boven. The railway department have effected some improvements. There used to be a rack railway there, but they have done away with it now, and that is the only difficult point I know of on the whole line.

3179. What is the gradient? Mostly 30?—I could not say, but it is an easy gradient, with the exception of the one point to which I have referred.

3180. And as compared with the line to Durban?—Yes, more favourable from a gradient point of view.

3181. **(Sir Rider Haggard.)** Is the ownership of the line to Delagoa Bay the same as the ownership of all the other lines in the Union?—Up to Ressano Garcia, and after that it belongs to the Portuguese Government. You will perhaps remember that the Portuguese Government forcibly expropriated the railway company during the Kruger régime.

3182. And it is still theirs?—Yes.

3183. So there is a dual management of that line?—Yes. They control 60 miles, and we control the balance. I think it is practically under the South African Railways. I think they practically control it.

3184. At any time the Portuguese Government could assert the right to close the line if they wished?—Yes.

3185. **(Sir Alfred Bateman.)** Not under the agreement?—No. I meant by *force majeure*, I suppose they had some Power assisting them to do such a thing.

3186. **(Sir Rider Haggard.)** The line is, anyhow, not in the same position as that from Durban?—No. But, of course, considering the position of the State concerned, we have no fear of that at all.

3187. **(Mr. Garnett.)** So your general point is that any natural advantages that Delagoa Bay possesses as a seaport, are more than counterbalanced by the railway rates which are charged?—Yes.

3188. And that is what you object to?—Yes.

Johannesburg. Friday, 3rd April 1914.

Mr. HOWARD WALLACE SOUTTER, Mr. ALFRED FALKLAND ROBINSON, and Mr. E. CHAPPELL, J.P., representing the Johannesburg Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Migration, Land Settlement, and Irrigation," see p.* 46, *on "Posts, Telegraphs, and Steamships," p.* 81, *on "Bills of Lading," p.* 91, *and on Empire Development," p.* 161, *of this volume: and on "Exhibitions," see p.* 124, *on "Statistics," p.* 130, *on "General Trade Questions," p.* 173, *and on "Legislation," p.* 183 *of* [*Cd.* 7707].)

3189. **(Chairman.)** I think the most convenient course would be for you to read your memorandum on the subject of railways?—**(Mr. Soutter.)** Yes. Our first memorandum is dated 4th February, and that is supplemented by a statement by Mr. Robinson. I will read the memorandum of the 4th February.

The memorandum was read, and is as follows:—

Railways.—Statistical information regarding the railways of South Africa will, no doubt, be supplied to your Commission by the Government.

The Chamber cannot refrain, however, from adding that the development of this country has been retarded by the system of imposing taxation through railway rates. This has conduced to the excessive cost of living, the heavy wage account, and the expensiveness of material, which together have hindered the industrial development of the interior.

Notwithstanding that under the Act of Union (section 127) the railways are no longer to be run on a revenue-producing basis, in actual fact, however, the rates are so arranged that the consignees in the inland centres have to pay excessive rates in order to make up losses on the working of the harbours and on the non-paying railway lines in the coast Provinces. This

is considered by the Chamber not only to be inequitable, but also to be inimical to the proper exploitation of the country's resources.

(Chairman.) I will now ask Mr. Robinson to read his statement dealing with railways.

Statement read as follows:—

Railways.—In dealing with this subject we propose to confine ourselves to the special features affecting the inland community and the disabilities under which we have lived and are living due to the exorbitant rates prevailing on the railways.

For many years the Johannesburg Chamber of Commerce has advocated a revision of the excessive railway tariffs, which form such a heavy burden upon those sections of the community living in the inland portions of the Union and especially upon the industrial population of the Witwatersrand area, described in the Railway Tariff Book as the competitive area, a title which has been well earned, for since the Rand and its gold mines were discovered the large traffic to this centre, carrying as it did and still does the enormous railway profits, has been ever the object of the keenest competition between the various coastal railway administrations.

Enormous expenditure has been incurred before Union by the lines mentioned and the harbours feeding those lines, in order to obtain and retain this very profitable traffic, and the community of the so-called competitive area have had to pay—with the inevitable result that it has not been found possible to establish local industries which might and should be worked within its own areas.

To give you some idea of the burden placed upon the inland population, we need only mention the following:—

In 1905, before Union, the gross earnings of the Central South African Railways, Transvaal and Orange Free State, were 5,364,691*l.*, to which must be added 2,524,782*l.* derived by the Cape and Natal in that year from the conveyance of traffic to and from the Transvaal and Orange River Colonies, bringing the total expenditure incurred by the public of these two Colonies for railway travelling and freight to close upon 8,000,000*l.*, or approximately, 20*l.* per head of the then white population, the great bulk of the burden falling solely upon the industrial section of the population.

In 1911, after Union, the South African Railways earned a net profit of 2,460,118*l.*, after paying interest on the capital; of this profit, 1,804,317*l.* was earned on the Transvaal section of the railways, and it should be noted that the sections in the Cape, Free State, and Natal, which earned the greater portion of the profit in those Provinces, were sections of the trunk lines to the competitive area.

One section of line in the Transvaal, viz.:—Germiston—Witbank, 80 miles in length, capital cost, 1½ million, earned in that year a net profit, after paying interest on the capital, of 701,200*l.* The bulk of the coal traffic to the gold mines is carried over this line.

The Act of Union (section 127) provided that after May 1914, the railways shall be administrated on business principles and not as a revenue-producing machine. During the past year or two some amelioration in the rates has been effected, but it is clear that even if the South African Railways show no surplus profit for revenue, the traffic to the competitive area will still have to pay the enormous losses incurred on nearly all the branch railways, especially those in the Cape Province.

There are many rates in the tariff book which are quite incomprehensible; for instance, the Union Steel Works at Dunswart, about 20 miles east of Johannesburg, pay 43½*d.* per 100 lbs. to send steel bars to Kimberley; the same bars are conveyed from Johannesburg to Kimberley at 14½*d.* per 100 lbs.

Preferential rates are another feature of the tariff book which our Chamber has always opposed, many articles, such as blankets, schoolroom furniture, iron and wood pipes, bacon, soap, &c., being carried at considerably less rates in the Cape Province and Natal than they are over similar distances in the Transvaal and Orange Free State; while the rate for imported sugar, wheat, and flour is more than double that for the same commodities produced in South Africa.

Johannesburg has always been debarred from taking full advantage of that port which, geographically speaking, is its natural inlet, viz., Delagoa Bay; the rates being so fixed as to divert all but the heavy and rough goods to the Union ports; while it may be argued, and rightly so, that our Union ports should receive preferential treatment, it seems inequitable that this should be done at the expense of only one section of the community.

It may be of interest to the Commission to learn that the whole capital from the Portuguese border to Germiston was paid for out of profit in somewhat less than four years; this was effected in spite of the fact that the operation of the Transvaal—Mozambique Treaty (1909) reduced the percentage of tonnage of oversea goods imported by Delagoa Bay from 66·03 per cent. in 1910, to 55 per cent. in 1912, with the consequent loss of profit.

The condition of affairs indicated above will largely explain the almost total absence of local industries other than the mining industry in the inland centres.

3190. **(Chairman.)** In regard to the railway rates affecting the establishment of local industries, have you any definite figures that you could give us? Your statement is rather vague.—**(Mr. Robinson.)** We have figures to support our statement which we can send. We can send in a definite statement showing the loss on the lines of the Cape Province and the other various sections of the railway concerned.*

3191. **(Mr. Sinclair.)** I have a few questions to ask as to railways. Is it the suggestion that the system of working the railways and the harbours together is not a good one?—**(Mr. Robinson.)** This Chamber did not approve of working the harbours and railways together—or, rather, the railways taking over the entire control of goods direct from the ship's side.

3192. After having fully considered such an important question, has your Chamber delivered itself of any resolution on the subject? Has there been uniformity as to the attitude of Chambers?—A resolution was carried by a large majority in regard to the doing away of forwarding agents at the coast and the handling of goods by the railway.

3193 The suggestion put before us particularly, take it, is that the railways should be regarded as a public convenience, and as they are built largely by money that has been borrowed it should be enough if they are able to produce approximately the amount necessary to cover interest and charges. Is that the suggestion?—**(Mr. Robinson.)** The suggestion is that they should be used to cover maintenance, betterment, renewals, depreciation, and interest on capital, but not to be used as a means of earning revenue for the Consolidated Fund or for the purpose of carrying out the administration of the Union. May I read a resolution that was carried on the question of the railways handling the goods at the ports? It reads as follows:—

"That in the opinion of this Chamber the adoption of
" the suggestion that the South African Railways
" should undertake, in respect of goods sent forward
" in bond, the duties now being carried out by the
" forwarding agents for the ports, would be an un-
" necessary interference with private enterprise by a
" Government Department, and that, in fact, if carried
" out, it would be a Government monopoly, and the
" inland commercial community have expressed no
" desire for such a change. It would lead to conges-
" tion and delay at the Customs House, and this
" Chamber is, therefore, opposed to any such action
" being taken by the Railway Administration."

* These documents, which were afterwards supplied, were:—

(1) A memorandum dated 16th February 1912.

(2) A letter dated 1st February 1913 to the Minister of Railways and Harbours.

(3) A copy of the evidence presented to the Economic Commission on November 21, 1913, by the Johannesburg Master Builders' Association (*see* the South African Master Builders' Federation Journal of February 15, 1914).

3194. You think it would be in the interests of this part of the Union if it had greater facilities to avail itself of Delagoa Bay as a port?—Yes, we think so.

3195. The existing condition of things has been brought about by an agreement that is still current, has it not?—Yes, an agreement entered into by the Transvaal Government shortly before Union, based upon the *modus vivendi* entered into by Lord Milner after the war.

3196. Is it the case that the working of such an agreement must in a sense be experimental, and that when it runs out—or by agreement before it runs out—if it is found that it is not working well, or if it is pressing unfairly on any particular centre, that experience will result in modification of its terms? That is, I take it, what you look for, is it not?—The position of that agreement is that it was based on a great many ulterior motives besides the question of making use of Delagoa Bay as a harbour, and one of the greatest drawbacks that the agreement has had, as far as the inland commercial community is concerned, has been the chopping and changing of the rates to other ports in order to keep more or less to the percentages guaranteed to them under that agreement.

3197. Those are alterations made to carry out the spirit of the agreement?—Yes, which have been very irksome to the inland community, because we were never sure from one day to another what the rates were going to be from Durban, East London, or Port Elizabeth, while the rates from Delagoa Bay have practically remained the same ever since the war, and these other ports have been varying their rates to such an extent that merchants carrying large stocks in Johannesburg have often found themselves heavily penalised through a reduction of rates from one or other of the ports.

3198. I take it your suggestion is that the agreement should be modified as soon as possible. I understand that you do not complain of the spirit of the agreement being carried out as long as it exists?—Yes.

3199. Your object is to try to get a speedy revision of the agreement for the reasons you have put before the Commission?—I think our object would be gained entirely if that agreement ceased to exist, provided we were then given an opportunity of getting our goods on a basis which is more in keeping with the mileage rates that we should get from Delagoa Bay, rather than having to get our goods considerably further from these other ports. The rates under the agreement are altogether too high, to start with

3200 1. That is a matter which will come up for review in the ordinary course of things when the agreement itself comes up for review?—Yes. **(Mr. Chappell to Mr. Sinclair.)** May I add something in regard to railways? You pointed out that our railway conditions are largely governed by the Mozambique agreement, but another point that I should like to make, supplementary to Mr. Robinson, is this, that the terms of the Mozambique agreement might be equally easily observed if the rates of railway freight were on a lower basis than they are to-day.

3202. **(Chairman.)** You would lower both?—Yes. The *pro rata* could still be maintained. If I could put before you one or two extraordinary positions it might help you to see our point of view. Take "Classification No. 2." The rate per ton per mile from Algoa Bay, that is Port Elizabeth, is 1·86*d.* The rate per ton per mile in the same classification from Delagoa Bay to Johannesburg is no less than 3·27*d.* Now our distance from Algoa Bay is 713 miles and Delagoa Bay is 367 miles. If 1·86*d.* is going to pay *viâ* Algoa Bay then obviously something very much less than 3·27*d.* is going to pay the other line. Put in another way, the matter appears like this. Taking Classification No. 2, the railage from Algoa Bay to Johannesburg is 5*l.* 10*s.* 5*d.* per ton. The railage from Delagoa Bay on the same kind of goods is 5*l.* per ton, but if the rate from Lourenço Marques were on the same basis per ton per mile as Algoa Bay, it would only cost 2*l.* 16*s.* 10*d.* per ton.

3203. **(Mr. Sinclair.)** Would a mileage rate operate fairly?—I quite admit the mileage rate is impossible under the agreement. I only mention it to show the extraordinary discrepancy. But it would not be impossible to lessen the burden on this community very materially, even while observing the conditions of the Mozambique agreement, by reducing the rates all round *pro rata* to the present basis.

3204. **(Mr. Tatlow.)** In regard to harbours, do you not think there is an advantage in efficiency and economy by them being worked by the Railway Department—quite apart from the question of the forwarding agents which you mentioned?—**(Mr. Robinson.)** When we discussed the matter the feeling we had was that the Government would thereby establish a monopoly in working these harbours and railways, and that after they had established that monopoly and the forwarding agent had disappeared we should suddenly find ourselves face to face with some excessive charges for doing the work. That was the feeling we had in our minds when we passed the recommendation.

3205. It is desirable, is it not, to see the harbours run as economically as they can be, and the railways and harbours have a great deal in common in regard to handling and working the traffic. Do you not think that such handling and working could be done more economically by the Railway Department?—We do not believe in the principle of Government trading. There is no doubt about it that the Railway Department would be able to work more economically, but the experience we have had in the past has been of such an unfortunate nature when the matters have got into the hands of one big administration such as the Railway Department. They have made use of their position to tax us most inequitably.

3206. But will not the working of the harbours come under the same conditions as the working of the railways, that is, that they shall be worked on business principles and shall not earn any excess of revenue over what is necessary for maintenance and interest?—Well, we have, up to a few months ago, experienced the fact that the losses on the working of the harbours have been paid for out of Railway revenue, and as I indicated in my statement, the whole revenue of the railways practically is drawn from the inland industrial population; so we have not only to pay the high charges on the railways, but also for the losses on the harbours, which the population living at the coast benefit from equally with ourselves.

3207. But I think we had evidence from the General Manager of Railways that the charges on the harbours were to be equalised and brought up to a point which would make them pay?—We are aware that a conference has just been sitting in Cape Town with that object in view, and the attitude which our Chamber took up was that if they put the harbours on a paying basis, to run on their own bottom, they should make a corresponding reduction in the railway rates, because they would be saving the allocation which they formerly had to make out of railway revenue to help the harbours, and we therefore desired to see the proposed alteration in the harbour rates reflected in a corresponding reduction in the railway rates. The losses last year on the harbours amounted to 240,000*l.*, which money was paid out of railway revenue.

3208. In regard to the question of railway rates, your complaint is that the rates to this district and the inland parts of the Transvaal are excessive compared with other parts of South Africa?—I do not think we said that the rates themselves, compared with the rates to other parts of South Africa, were excessive, because I believe the rates in some other parts of South Africa are even higher per ton per mile than the rates to Johannesburg.

3209. Excessive *per se*?—Yes, and when you consider the enormous volume of traffic going to one centre we believe we should have the benefit of the reduced cost of haulage. As I mentioned, certain articles are carried very much cheaper in Natal and the Cape than in the Transvaal and Free State. Those are what are termed preferential rates. But, speaking generally, while the rates to the so-called

competitive area—over what they term the main trunk lines to the north—are perhaps cheaper per mile than some others, we consider they are by no means so cheap as they should be, considering the immense volumes of traffic carried to one centre.

3210. Do you consider that a town which has a greater volume of traffic than another town should have cheaper rates?—Yes.

3211. Well, it is rather a novel principle in fixing railway rates, to give lower rates to towns and districts which have a higher amount of traffic than others?—Well, we have the experience of countries like America and towns like Chicago, which have been practically built up on the basing point rates.

3212. I suppose you saw the evidence of Mr. Hoy that a great many of the preferential rates had been abolished, and there were only some 26, I think he said, now existing, and he stated that the Railway Department were largely engaged in assimilating the rates and putting them on a fair basis throughout the whole of South Africa?—Yes. We are aware that Mr. Hoy is personally very much opposed to these preferential rates, and I have no doubt he is making every effort to abolish them. But the fact remains that to-day they exist, and in a great measure they are due to political influences.

3213. I understood from him that in a reasonable space of time all these inequalities will disappear and fair rates will be adopted?—We can only hope that Mr. Hoy will be able to carry out his intentions, but when you have to deal with such articles as sugar and the interests of the Natal sugar-growers and others—interests which are applicable more or less to one section of the country—it is a very difficult matter to get the Government to agree on principles.

3214. And again you say it has not been practicable to establish local industries on account of high rates?—That is so.

3215. Have you any definite cases in which this has happened?—We can give you cases. There is the case of steel construction work, for instance. That is a thing which is very largely required in this country, and the business has in a great measure all gone down to the coast, principally on account of the high cost of the raw material and the wastage of same on which they have to pay railage if the construction is made in Johannesburg as opposed to the coast. I must also confess that the cheaper wages which are paid at the coast no doubt have influenced this question as well as the high railway charges to this centre, but I think that of these two factors the high railway charges have the more important bearing on the fact that these industries are at the coast. We have this great disadvantage in regard to many of the rates, that raw material is carried very often at the same rate as the finished article, or with only a very small difference, and entirely out of proportion to what it should be.

3216. I suppose you look forward to further substantial reductions of the rates as the surplus earnings of the railways increase?—We hope so, but we find in the past they have so juggled—if I may use that term without offence—with the results of the working of the railways that they have shown no room for any further reduction. We have been hoping to see reductions of rates made out of these millions of money earned by the railways in the last year or two, but we have been rather disappointed. We do not think that the railways should any longer be employed as a revenue-producing machine.

3217. But it does not follow that you will not have those reductions in future if your railway traffic increases considerably, and the country prospers, because the earnings of the railway will, under the Act, be applied to reductions of rates?—We only trust that they will apply those reductions to this competitive area instead of to the wine-growing district of the Western Province, for instance.

3218. That is what you will press for?—Yes, certainly.

3219. **(Sir Alfred Bateman.)** On the subject of railways, what balance did you say it had been juggling with?—I did not use the word in an offensive sense.

3220. What was the point?—We had the sum of 460,000*l.* odd passed by a committee in the House and charged as interest on capital, which was really not capital in the ordinary sense of the word, which should have borne interest, because it was the cost of certain railway lines which had been built out of profits. The capital of the railways at a certain date was something like 73 million pounds. About two years ago the Select Committee on Finance suddenly decided to make the capital 86 million pounds and to charge an amount of 460,000*l.* odd to interest out of revenue owing to the creation of this additional capital.

3221. Was that an arbitrary figure?—No. It was the actual interest on the same basis.

3222. But had all that money been spent as capital? Had it been raised as capital?—No.

3223. Was it raised out of profits or savings?—Yes.

3224. That was used as capital and now it has been put in as capital?—It is now charged as capital. The Union exchequer does not pay interest on that money, but the railway is charged with the interest all the same.

3225. But they did not borrow it?—They did not borrow it. **(Mr. Soutter.)** But the point is this, that this was expenditure out of profits for capital purposes and on that amount interest is charged and deducted from profits, so that the profits are paying interest on their own profits. **(Mr. Robinson.)** That is one of the reasons why the profits which have been made in the past are gradually diminishing through this form of keeping accounts.

3226. In regard to this railway evidence, I am perhaps as well acquainted with the position as anyone else except those who live here, because I was here seven years ago on the Shipping Freights Commission and I heard much the same complaint. The Mozambique agreement had not long been made then. It seems to me it is not so simple as you say. They could not allow that all your trade must come through Delagoa Bay. Do not you admit that there is a duty which Johannesburg owes to the other Union ports?—We certainly do.

3227. These rates were carefully calculated so as to secure certain percentages to Algoa Bay and so on?—Yes, that was in the Mozambique Treaty—the *pro rata* basis of traffic.

3228. At that time there was always considerable trouble. Sir Donald Currie used to be juggling with the freight rates to Delagoa Bay and Durban and so on, and that was corrected by the Government raising or lowering the railway rates so as to keep the same proportions between the ports—the same percentages. It is ancient history now, and I do not think we need go into it, but when this agreement comes to an end you will probably get these matters remedied?—Every ton of goods transferred from Delagoa Bay to Durban means a loss of revenue to the Union. It may assist the port of Durban and the Natal section of railway, but it means an actual loss of revenue, because there is more profit made by our railway on goods hauled from Ressano Garcia to Johannesburg than on the goods hauled from Durban to Johannesburg.

3229. I am afraid this Commission will have some difficulty in making recommendations between one port and another?—**(Mr. Chappell.)** There does not seem much difficulty in making recommendations that the whole basis should be lowered; you can keep the *pro rata* differences just the same.

3230. What I understand you complain of mostly is that the railway rates here should be burdened with the losses sustained by working the branch and costal lines?—**(Mr. Robinson.)** Yes. That is our contention.

3231. Well, it has occurred to me that unless you deliberately elect to make Delagoa Bay your only means of communication with the outer world, your traffic must go over these expensive coastal lines which are so heavy to work—and, therefore, it is quite reasonable that you should bear a share of this, is it not?—The through traffic on those lines from the coast pays very well indeed, whether it comes from Delagoa Bay, Natal, or the Cape.

3232. I do not know what is the proportion of the unprofitable branch lines to the whole mileage system, you may be able to bring that out in your statement which you are going to send in. But at the same time there are conditions affecting the working of these lines, I understand, which make the working of them more expensive than those up here in the flat level country, and, of course, the maintenance must be excessive as compared with the others?—We do not think that is the case, because whatever comes up to this altitude must be hauled from the coast, whether Delagoa Bay or Cape Town or Durban or East London, it all has to climb up to the same altitude.

3233. Does the traffic from the Cape pay more per ton per mile than from Delagoa Bay?—No, the traffic from Delagoa Bay pays much more per ton per mile than from the Cape or Natal.

3234. So that is in your favour?—But we do not know what the cost of that traffic is to haul, and we have not been able to obtain any figures to show what it costs the Administration to haul the traffic.

3235. Have you figures to show the cost of working the railways in each of the several Provinces?—Yes.

3236. Those are authentic?—Taken out of the General Manager's Report.

3237. I have never seen any accepted general statement of working published by the Railway Department. Now the only point I want to get at is this: There have been many large reductions made in the last year or two in anticipation of the statutory date when the railways are to be worked without profit, and so far the effect is this, that the Minister told the Parliament a week or two ago that he was within sight of a deficit for this year. Now, if there is a deficit on the working of the railways it has to be made up out of the general taxation. We heard the other day that the Rand pays half the general taxation of the Union?—Yes.

3238. Well if you had to pay in addition to your present taxation half of the loss on the working of the railways, would you be better or worse off than under the existing railway rates?—We should be very much worse off, but with regard to the reductions which Mr. Burton referred to, they cannot be the cause of the deficit on the railways, because those reductions only amounted to something like one and a quarter millions, and they were by no means applied to this competitive area in its entirety. Some 750,000*l*., was the estimated reduction due to the reduction of certain railway rates. But we do not think, for a moment, that that figure has ever been obtained in actual practice. The losses that are made on the railways are due chiefly to the agricultural branch lines, which have practically little or no traffic, and which is carried at ridiculously low rates, and with very uncertain volumes. And it is for those losses which the railway may eventually have to return a deficit that we have to pay. If in addition to the high rates that we are paying, we have to share in the deficit in the general taxation of the country, we shall be very much worse off in future than we are now.

3239. **(Chairman.)** You stated that the branch lines to the agricultural districts make the losses and that loss your traffic has to pay for?—That is what we maintain, and we shall submit you a detailed statement* showing the detailed losses for the various sections of the railway branch lines, and otherwise.

3240. But I think you take the view that agricultural development is of great importance to this country?—Immense importance.

3241. Are not those low agricultural rates a very powerful stimulus to agricultural development?—That is what we feel. I think we fully recognise that the principle should apply for a certain period after building a railway into a new agricultural centre. I think we should be in entire approval of the system of cheap railway rates until that centre was sufficiently developed to pay its equal share of taxation, but what we find is that it is the almost universal rule that many of these railways have been built in centres and districts which were by no means ready for an expensive railway, and after the railways have been built no steps have been taken to develop the country by means of irrigation or water conservation, or immigration, in order that the district might warrant the railway which has been built there—the railway having been built, possibly, to satisfy certain political interests.

3242. And not in the interests of genuine agricultural development?—No.

3243. Your general view is that Johannesburg, or the competitive area, pays too large a proportion of the total railway revenue, and of the total revenue of the Government—is that so?—Yes.

3244. Now, can you give any accurate figures as to what proportion you do pay? Has any statistical authority connected with the Chamber of Commerce ever worked out the actual figures in support of that general statement?—For the railways alone, we can do so.

3245. And for the other revenue?—We cannot.

3246. A statement has been prepared, which has no pretence to authority, which attempts to arrive at the basis of that, and I should be glad if the Chamber of Commerce of Johannesburg would look into that and prepare a counter statement if possible. It appears to be very necessary to arrive at some accurate idea of what your contribution is. It has been compiled from the best sources available, but the conclusion is doubtful, because the calculation is obviously one of considerable difficulty, and the Commission would like to have your views on the matter?—**(Mr. Soutter.)** We will endeavour to comply.

3247. As a matter of fact, goods to and from Delagoa Bay proceed by what route?—**(Mr. Chappell.)** They proceed by the Witbank route—the direct line.

3248. Not through Pretoria?—No.

3249. That route is used almost exclusively?—I think both routes would be used, but the shorter one is used the more.

3250. To what extent do the superior harbour facilities of Durban counteract the difference in distance?—**(Mr. Robinson.)** The charges for forwarding and landing?

3251. Both the charges and the facilities and the difference in cost of freight?—There is no doubt that the facilities in Durban are so much better than they are to-day in Delagoa Bay that merchants who have important deliveries and quick deliveries necessarily frequently ship *viâ* Durban in preference to the other port, because they feel they will get quicker attention That is one point which very often outweighs the small difference in the railage. The landing and forwarding charges at Durban are very much the same at Delagoa Bay, and the sea freight between Durban and Delagoa Bay, I think, is approximately the same. There may be half-a-crown difference in the conference lines as against Delagoa Bay and in favour of Durban, but many lines which are not considered to be conference lines charge the same freight to either port. The Deutsche Ost Afrika Line, for instance, charge the same to both ports.

3252. Does that line run from English ports?—They formerly used to call at Dover, I think, but I do not think they do any more. But they have sailings west and east—both routes—and the freights are the same.

3253. As you may be aware, very large expenditure has been incurred at Durban in creating the harbour, and further heavy expenditure is contemplated. But if the principal customer of Durban, namely Johannesburg, is anxious to use Delagoa Bay as her port, rather than Durban, that becomes rather a serious consideration, does it not?—Yes, it would, if we felt that the whole country's future prosperity depended on the Witwatersrand, but we do not. Use the revenue they are getting from this centre to develop the rest of the country, and then Durban, East London, and Port Elizabeth will not be able to handle the traffic which this country will be able to produce in the

* The Chamber of Commerce subsequently submitted copies of memoranda addressed to the Minister of Railways on 16th February 1912, and 1st February 1913. These memoranda are not printed here.

future. In our opinion to-day, if the coal traffic, the export traffic in coal through Delagoa Bay is going to be anything on the lines it has been at Durban, there will be a congestion of traffic on both those railways. And what will be the position when the country reaches that state of prosperity and agricultural development when we become large exporters of cereals and meat. The railways and harbours as at present constituted will barely be able to handle the traffic.

3254. Yes, but in view of the very large expenditure contemplated at Durban for harbour extension, a strong feeling here in favour of Delagoa Bay as opposed to Durban would be a serious consideration?—I think we should be wrong in letting you think there was a very strong feeling here in favour of Delagoa Bay; what we feel has been that without our being consulted it has been taken out of our hands to make use of our best and most favourable geographical position. Heavy goods, of course, practically all come *viâ* Delagoa Bay.

3255. In five years' time, when that Convention comes to an end, and the South African Government resumes its liberty of action, what is your suggestion as to the best arrangement?—I think there will probably have to be some fixed arrangement made in regard to Delagoa Bay. Speaking personally—I cannot speak on behalf of the Chamber—I should like to see practically an open railway rate market, open competition. I should like, in this respect, to put before you another possibility. Say in three, five, or ten years' time, if through force of circumstances Delagoa Bay belonged to the Union, should we have Durban grasping at the throat of Delagoa Bay, as Durban has in the past fought against East London and East London against Port Elizabeth? That is what we have to consider, I submit. Because Delagoa Bay happens, unfortunately, to belong to a foreign nation, which has spent probably proportionately as much money in developing their port as Durban has hers, is she to be debarred from doing her proper share of this country's trade? But supposing it became the property of the Union to-morrow, should we not be entitled to make use of it as our geographical port?

3256. Your view in short is that having to divide your traffic compulsorily between five ports is a serious burden upon your commerce, is that so?—Undoubtedly. **(Mr. Chappell.)** Our whole point is that the excessive taxation that we have to bear in this respect is a serious burden upon our commerce and a hindrance to the development of this area.

3257. Now, can you tell us something very briefly as to the growth of Johannesburg as a distributing centre? Johannesburg is primarily a mining centre, but I think we have heard on various occasions that it is increasingly important as a distributing centre; can you tell us anything in regard to its position and prospects in that regard?—**(Mr. Chappell.)** Yes. We could not prepare any figures at the moment, but we can have them prepared, if you so desire, and they will of interest to the Commission. You will find that Johannesburg's position in that respect has been steadily growing stronger for years past, and it shows every tendency to further growth. We can give you the figure, I think, for the railage of goods away from Johannesburg, which would show you the force of the views we put forward. It has become a characteristic of recent years that it is the largest distributing centre in the Union; there is no doubt.

3258. So that in the event, which we hope is improbable, of mining diminishing here, its importance as a distributing centre may fill the vacuum?—Yes. And it has become a distributing centre not because of the assistance of the Government, but in spite of it. The sheer fact that it is the largest consuming centre in the Union has shown that it is the best place to market the produce of the Union, and it is becoming more and more the principal distributing centre of the Union.

3259. Having the largest market it is the most convenient depôt?—Yes, that is the fundamental reason, and it has been assisted, I may tell you, by a system of what we call distribution rates, which have come into force in recent years.

3260. What is the reply of the South African Railways to observations similar to those you have addressed to us this morning?—**(Mr. Robinson.)** We have had some difficulty in getting any reply.

3261. There is no definite line of argument?—No.

3262-3. You have naturally put these views before the Railway Administration and the Government?—Invariably; not once, but many times, and we have had the satisfaction of seeing the General Manager more or less support our statements in his own annual report, where he has confirmed more than once our contention that the burden falls upon the dweller in the inland centre of the Union.

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APPENDIX I.

Newcastle, Monday, March 23rd, 1914.

EVIDENCE taken by a COMMITTEE of the COMMISSION consisting of Sir H. RIDER HAGGARD, Mr. T. GARNETT, and the Hon. E. R. BOWRING.

Mr. WILLIAM BEKENN, Manager of the Fairleigh Colliery, examined.

(*For Evidence of this Witness as to Coal Mining*, see *p.* 105 *of* [*Cd.* 7707.]).

(Sir Rider Haggard.) Do you know how the output of the Natal collieries could be increased?—We are so far away from the distributing centres. All our coal goes practically to Durban. We are 260 miles from the coast, and it is only by sympathetic treatment by the Government in the matter of railage that we are able to increase the output. At the present time Natal is not treated fairly. The differentiation of rates between the Transvaal and Natal are so large that we are handicapped, *i.e.*, the rates for bunkers from Transvaal to Cape Town is ·16 of a penny per ton per mile, whilst the bunker rate from Natal mines to Durban is at the rate of ·33 of a penny per ton per mile. It is bunkered at from 15*s.* 3*d.* to 16*s.* 6*d.* per ton. There will have to be a reduction of something like 2*s.* 6*d.* per ton on Natal coal to enable us to compete with other countries and capture the Indian and Eastern market.

APPENDIX II.

See *Evidence of Mr. W. W. Hoy, Question* 2468, *p.* 115.)

STATEMENT No. 1.

Financial Results of Working—Railways.

Years.	Gross Earnings.	Gross Expenditure (excluding Interest on Capital).	Percentage Gross Expenditure to Gross Earnings.
	£	£	
1909 - -	10,455,819	5,675,658	54·3
1910 - -	12,357,532	6,862,684	55·5
1911 - -	12,329,265	7,441,566	60·4
1912 - -	12,486,357	8,112,674	65·0
1913 -	12,388,755	8,964,690	72·4
Increase in 1913 over 1909.	1,932,936	3,289,032	18·1
Per cent. - -	18·49	57·95	

STATEMENT No. 2.

Passenger Traffic—Railways.

Years.	Number of Journeys.			Total.
	1st Class.	2nd Class.	3rd Class.	
	No.	No.	No.	No.
1909 - -	9,711,994	8,614,879	9,864,262	28,191,135
1910 - -	11,282,671	11,081,860	11,336,318	33,700,849
1911 - -	12,791,485	12,178,513	12,195,699	37,165,697
1912 - -	15,109,043	12,487,302	13,854,146	41,450,491
1913 - -	15,847,042	13,116,706	14,244,474	43,208,222
Increase in 1913 over 1909.	6,135,048	4,501,827	4,380,212	15,017,087
Per cent. - -	63·17	52·26	44·40	53·27

APPENDIX II. [*Railways, Harbours, and Coal for Bunkering and Shipment.*

STATEMENT No. 3.

Tonnage of Traffic—Railways.

Year.	Goods and Minerals.	Coal.	Freehauled Railway Stores.	Total.
1909 - -	3,738,092	5,197,374	1,332,608	10,268,074
1910 - -	4,680,737	6,028,000	1,706,102	12,414,839
1911 - -	4,751,515	6,328,560	1,738,236	12,818,311
1912 - -	5,223,763	6,523,835	2,111,320	13,858,918
1913 - -	5,416,694	6,985,832	2,313,167	14,715,693
Increase in 1913 over 1909.	1,678,602	1,788,458	980,559	4,447,619
Per cent. -	44·91	31·41	73·58	43·32

STATEMENT No 4.

Train-Mile Results of Working—Railways.

Years.	Earnings per Train-Mile.	Expenditure per Train-Mile.	Net Earnings per Train-Mile.
	s. d.	s. d.	s. d.
1909 - - -	10 7·6	5 9·3	4 10·3
1910 - - -	10 5·8	5 9·8	4 8
1911 - - -	9 7·9	5 10	3 9·9
1912 - - -	8 10·4	5 9·1	3 1·3
1913 - - -	8 1·9	5 10·9	2 3
Decrease in 1913 as compared with 1909.	2 5·7	Incr. 1·6	2 7·3
Per cent. - -	23·28	2·31	53·69

STATEMENT No. 5.

Open Mile Results of Working—Railways.

Years.	Earnings per Open Mile.	Expenditure per Open Mile.	Net Earnings per Open Mile.
	£	£	£
1909 - - -	1,531	831	700
1910 - - -	1,786	992	794
1911 - - -	1,700	1,026	674
1912 - - -	1,642	1,067	575
1913 - - -	1,550	1,121	429
Increase in 1913 over 1909.	19	290	Decr. 271
Per cent. - -	1·24	24·90	„ 38·71

STATEMENT No. 6.

Net Earnings, excluding Net Earnings of Subsidiary Services. i.e., *Catering, Bookstalls, Interest on Investments, &c.*

Years.	Net Revenue.	Net Revenue per Cent. of Capital.
	£	Per Cent.
1909 - - - - -	4,780,161	6·6
1910 - - - - -	5,494,848	7·4
1911 - - - - -	4,887,699	6·4
1912 - - - - -	4,373,683	5·6
1913 - - - - -	3,424,065	4·2
Decrease in 1913 compared with 1909.	1,356,096	2·4
Per cent. - - - -	28·37	—

(Interest on Capital is paid to the Treasury at the rate of 3½ per cent.)

STATEMENT No. 7.

Train and Engine Mileage.

Year.	Train Mileage.	Train and Engine Mileage.
1909 - - - -	19,662,444	24,166,980
1910 - - - -	23,580,646	29,764,137
1911 - - - -	25,521,713	32,804,298
1912 - - - -	28,173,706	36,154,189
1913 - - - -	30,359,933	38,933,145
Increase in 1913 over 1909	10,697,489	14,766,165
Per cent. - - -	54·41	61·10

STATEMENT No. 8.

Tonnage of Traffic carried during 1913 *and* 1912 *classified according to certain Specific Commodities.*

Commodity.	Year 1913.	Year 1912.	Increase.		Decrease.	
	Tons.	Tons.	Tons.	Percent.	Tons.	Percent.
Agricultural machinery and implements	33,957	23,651	10,306	43·6		
Ale, beer and stout (South Africa) -	41,237	40,591	646	1·6		
Bricks and building stone (South Africa)	350,291	332,893	17,398	5·0		
Butter (imported) - - - -	791	(*a*)	791	100·0		
„ (South Africa) - - - -	4,969	4,507	462	10·0		
Cheese (imported) - - - -	925	(*a*)	925	100·0		
„ (South Africa) - - - -	69	(*a*)	69	100·0		
Cement (imported) - - - -	46,546	49,781			3,235	6·5
„ (South Africa) - - - -	46,179	53,822			7,643	14·2

(*a*) This traffic was not shown separately in 1912.

Commodity.	Year 1913.	Year 1912.	Increase.		Decrease.	
	Tons.	Tons.	Tons.	Per cent.	Tons.	Per cent.
Coal (South African)	6,985,832	6,523,835	461,997	7·1		
Coke (imported)	2,886	4,241			1,335	31·5
Explosives	24,986	25,042			56	·2
Fencing Material	91,945	75,987	15,958	21·0		
Fertilizers and manure (imported)	48,871	24,635	24,236	98·4		
,, ,, ,, (South African)	67,373	65,327	2,046	3·1		
Fish (imported)	2,717	(*a*)	2,717	100·0		
,, (South African)	11,461	11,757			296	2·5
Flour, meal and bran (imported)	138,798	76,162	62,636	82·2		
,, ,, (South African)	162,401	187,929			25,528	14·2
Forage, Hay, and Lucerne (imported)	1,151	538	613	113·9		
,, ,, (South African)	131,590	129,230	2,360	1·8		
Fruit (South African)	82,240	74,714	7,536	10·1		
Galvanised iron	42,287	36,544	5,743	15·7		
Grain (imported)	54,656	8,837	45,819	518·5		
,, (South African)	532,907	663,720			130,813	19·7
Machinery and component parts	93,519	118,049			24,530	20·8
Military goods (including coal conveyed at military rates).	20,825	31,453			10,628	33·8
Minerals (other than coal and gravel)	104,176	145,977			41,801	28·6
New construction	163,854	129,013	34,841	27·0		
Ores for export	10,417	7,131	3,286	46·1		
Salt (imported)	3,365	(*a*)	3,365	100·0		
,, (South African)	47,613	43,506	4,107	9·4		
Skins, hides and horns	37,612	33,719	3,893	11·5		
Spirits (imported)	6,354	6,817			463	6·8
,, (South African)	11,495	11,350	115	1·0		
Sugar (imported)	9,740	6,499	3,241	49·9		
,, (South African)	211,054	214,537			3,483	1·6
Tea (South African)	2,803	2,535	268	10·6		
Timber (imported)	196,858	209,775			12,917	6·2
,, (South African)	216,910	167,479	49,431	29·5		
Tobacco (South African)	11,386	11,711			325	2·8
Wattle bark	64,602	64,146	456	·7		
Wines (imported)	379	378	1	—		
,, (South African)	34,022	32,409	1,613	5·0		
Wool (South African)	112,954	99,995	12,959	13·0		
Other traffic	2,135,523	1,997,376	138,147	6·9		
Total revenue-earning traffic	12,402,526	11,747,598	654,928	5·6		
Free hauled traffic:—						
Railway Coal	1,721,428	1,566,333	155,095	9·9		
Railway stores and material	591,739	544,987	46,752	8·6		
Total free hauled traffic	2,313,167	2,111,320	201,847	9·6		
GRAND TOTAL	14,715,693	13,858,918	856,775	6·2		

(*a*) This traffic was not shown separately in 1912.

APPENDIX III.

MEMORANDUM (extracts) furnished to the COMMISSION by Mr. J. T. WILLIAMS, MANAGING DIRECTOR OF THE NATAL NAVIGATION COLLIERIES AND ESTATE CO., LTD., on Coal Bunkering at Durban, the Natal Coal Export Trade, and Railway Rates on Natal Coal.

(*For the evidence of Mr. Williams*, see *p.* 125.)

The following statement shows the output of coal in Natal during each of the last four years:—

	Tons of 2,240 lbs.
1910	2,296,687
1911	2,394,238
1912	2,472,085
1913	2,608,408

The total for the four years is distributed as follows:—

	Per cent.
Shipped as bunker coal at Durban	49
Exported as cargo	19
Natal railways and harbours	14
Inland or local customers other than railways and harbours	18
	100

A detailed analysis of the 1913 export trade of the Natal collieries gives the following figures:—

Exported to:—

	Tons.
Bombay, Karachi, Colombo	263,529
Singapore and other neighbouring Ports	33,380
Port Louis, Zanzibar, Beira, Madagascar, and other East Coast Ports	16,320
West Coast Africa	2,751
	315,980

The existing collieries can increase their production probably as much as 50 per cent., given reliable and sufficient supply of railway trucks and an adequate and suitable supply of coloured labour. The present carrying capacity of the railway is able to carry a much larger output, but being a single track line, accidents often disorganise working arrangements.

Expansion mainly depends on the increase of coal shipped as cargo for consumption elsewhere, but increases may also be brought by other causes such as :—

(*a*) Lower railway rates:

(*b*) Increased bunkering trade.

(1) *At Durban.*—It will be seen from the table analysing distribution of output that the bunkering trade itself is already considerable.

Much of this has been due to increased shipping required to deal with the expanding trade of the Colony and South Africa, and partly to the increased quantity taken by steamers, especially those engaged in the trade between Australia and Europe. Many large steamers have been built within recent times for this trade.

It may be presumed that under normal conditions this trade will continue to increase (with a decreasing percentage of annual increase). The increase has been continuous, notwithstanding the decrease from time to time in the Suez Canal dues.

(2) *At Cape Town.*—This again depends upon the expansion mainly of the Australian trade, also on the price of coal at Las Palmas and Madeira. Obviously, the oftener bunkers can be replenished the greater the tonnage of pay cargo that can be carried. Steamers on the long voyage between East and West can, therefore, increase their earnings if good coal at a suitable price be available at Cape Town. It may be presumed that Natal coal owners will in their own interests watch markets so as to secure as much as possible of the Cape Town trade. At Cape Town, Natal coal is to some extent in competition with Transvaal coal, owing, we think, to the unduly low rates overland from Transvaal collieries. They have also the competition of coal imported from the United Kingdom and of coal shipped to Las Palmas and Madeira. The price trimmed into bunkers at Cape Town will, therefore, depend on freight, which in 1914, and especially in 1913, has been higher than previously.

This matter will be more fully referred to when dealing with the question of railway rates.

The following figures show the extent import of coal from the United Kingdom has decreased at Cape Town since the development of bunkering of Natal coal at that port set in :—

1911	-	-	51,500 tons (of 2,240 lbs.).
1912	-	-	45,700 ,, ,, ,,
1913	-	-	28,600 ,, ,, ,,

3. *Export of Natal Coal to Cape Colony generally (Bunkers and Local Trade).*—One or more of the Natal collieries, at different times, succeeded in making contracts with the old Cape Government Railways for coal for locomotive use. It was railed to Durban and thence shipped to East London, Port Elizabeth, and Cape Town respectively, but the business ceased after 1912 owing to the Union Railways Administration being suited with exceedingly low-priced contracts with Transvaal collieries. The new trade in sending coal to Cape Town for bunkering came as a set-off. The annual exports for this and other trade have been as follows :—

1911	-	-	-	-	270,314 tons.
1912	-	-	-	-	402,967 ,,
1913	-	-	-	-	299,570 ,,

This business has been made possible by the co-operation of the Government on the one hand and of the collieries on the other. Not long ago charges at Cape Town for removing coal from the carrying ship to the bunkers of the buying ship were excessive. To promote the trade the Government fixed a uniform charge of 2*s.* to cover all charges incidental to removing coal, trimmed, into the bunkers of the buying steamer. In 1914, this charge has been increased to 2*s.* 6*d.* night work and Sundays, other days 2*s.* as before; 3*s.* coaling in roadstead. It is not convenient or economical for any one Natal colliery to make its own arrangements independently of other Natal collieries for exporting coal to Cape Town, owing to difficulties incidental to chartering and loading steamers. The majority of the companies have, therefore, found it necessary to combine so as to supply large quantities to a buyer undertaking the risks of sea transport and sales at Cape Town. The collieries sell at a price net, free at ship, Durban, leaving it to the buyer to make the selling price at Cape Town. Under this arrangement a minimum quantity has to be bought firm for delivery in equal monthly quantities over one year. This has necessarily carried the right to the buyer to restrict the sellers from competing against him at destination through other agents. A good deal of unjustifiable opposition to this arrangement has manifested itself at Cape Town. Dissatisfaction has arisen among some of the selling agents at Cape Town. It may be well, therefore, to enlarge on the position. It is common knowledge that the larger collieries sell coal through their own accredited agents; whether sales be in the United Kingdom, in Cape Town, or elsewhere, an agent is usually restricted from selling the coal of another colliery. Under this practice no one can buy, say, Durban Navigation coal in the United Kingdom or Dundee Company's coal or Natal Navigation, except through the respective agents of those collieries. It would be unreasonable if other coal agents in the United Kingdom complained, say, to the Board of Trade, that they were not able to buy in the United Kingdom the above coals, except by buying direct from the company's agents, yet this is what is done by certain coal merchants at the Cape. They make it a grievance that they are not able to buy direct from the collieries, though the more important collieries and others have their own agents at all the ports.

In 1913, a number of companies co-operating made a contract with the Union-Castle Company, which was advantageous to the collieries and to the freighters, and at the same time did not place the consumer at a disadvantage. The co-operating companies made it a condition that the Union-Castle had to buy a minimum of 326,000 tons of varying quantities from each colliery at prices varying from 13*s.* 6*d.* to 15*s.* net, free at ship, Durban. The Union-Castle Company would require less than one half of this quantity for their own steamers and the balance would have to be exported for sale at Cape ports, otherwise they would not be able to secure the quantity required for their own bunkers. The Union-Castle Company were obliged to buy the large additional quantity for export as a condition of the contract; in return they imposed upon the collieries the condition that the collieries should not compete against them at Cape ports by sending consignments of their own direct. The collieries did not attempt to prevent the Union-Castle from shipping other coals to Cape ports if required. As a matter of fact, large quantities of other coals were actually shipped. The Union-Castle were free to fix their own rate of freight, and to fix the selling price at Cape Town, and this they would be bound to fix at a price that would enable them to dispose of the surplus bought over their bunker requirements. Apparently the rate of freight included was not more than would have to be paid to any other freighter. The grievances complained of apparently were :—

(1) That the coal agents at Cape Town could not obtain coal direct from the collieries, and that they had to buy from the respective agents of the collieries or not at all.

(2) That the arrangement by which coal was sold in large quantities to one buyer for export to the Cape had increased the price of coal at Cape Town.

The increase in the price has been brought about by other circumstances. In 1910, 1911, and 1912 all Natal collieries were in free competition, with the

result that in 1912 prices had reached their lowest limit, and more than one company had to make temporary arrangements to tide over financial stringency. The highest price in 1910 was 14*s.* 6*d.* for bunker coal, net, f.a.s. Durban, 14*s.* 6*d.* in 1911, and 14*s.* 9*d.* in 1912; other prices varied down to 12*s.* 6*d.*, whilst during most of this time the shipping companies were making handsome profits in South Africa and throughout the world. In 1913, in order to promote the export trade and to improve financial results, a number of companies decided to co-operate and thereby succeeded in raising prices. The prices for this group ranged in 1913 from 15*s.* 3*d.* to 16*s.* 6*d.* per long ton, net, f.a.s. Durban, and in 1914 from 15*s.* 3*d.* to 17*s.*, all subject to reduction for quantity. This increase, added to the phenomenal rise in freights in 1912 and 1913, brought about an increase in Cape Town which would have happened whether the business had been done through the Union-Castle Company or through any other buyer.

Increased Exports.

The exports to Cape Town are dealt with in a previous heading. It is to this and to an increase in the general export trade that the Natal coal industry looks for the greatest expansion in trade. The markets most easily accessible are:—

		Competitors.
East Coast	Zanzibar, Chinde, Mombasa, Aden	Transvaal and Welsh.
India	Karachi, Bombay, Marmugoa	Indian, Transvaal, Welsh, Japanese.
Ceylon	Colombo and requirements, Ceylon Government Railways	Do.
Mauritius		Transvaal, Welsh.
Madagascar		Do.
Straits Settlements.		Australian, Indian, Japanese, Transvaal.
Dutch East Indies.		Do.
South America.	Buenos Ayres, Rio de Janeiro, &c., &c.	United Kingdom.

The following figures give some idea of the business done at some of the above places:—

Export of Coal from the United Kingdom.—For month of January in each year:—

	January 1912.	January 1913.	January 1914.
Portugal, Azores, Madeira	109,200	142,600	130,800
Madeira not separately stated.			
Spain, Canaries	396,500	361,500	345,600
Las Palmas not separately stated.			
Brazil	131,800	139,900	118,500
Argentine Republic	279,900	319,900	354,800
*Aden and Dependencies	25,600	11,200	12,100
*British India	3,600	4,800	1,800
*Ceylon	14,200	24,400	38,500

According to Union statistics Cape Town imported from the United Kingdom:—

	Tons.
1911	51,500
1912	45,700
1913	28,600

* Imports also from other countries (India, Japan, and Australia).

India uses a large quantity of coal other than produced by Indian collieries. The imports are supplied by Australia, Japan, United Kingdom, and Natal. A large trade has been by Natal collieries with Bombay, Karachi, and Ceylon. The shipments to India, including Ceylon, in 1913 amounted to 263,529 tons. The railway contract with Ceylon Railways was secured by two Natal collieries for 60,000 tons a few years ago. A contract with the Railways has also been secured for 1914 to the extent of 30,000 tons.

The total quantity of coal imported into Bombay by sea from all sources varies annually, but it may be taken at from 1 million to 1½ millions, most of which comes from Calcutta, the balance being supplied by Europe, 120,000 to 150,000; Australia, 100,000; and a small quantity from Japan.

The figures given below are taken from a Bombay market report to illustrate comparative prices per ton of Cardiff, Bengal (Desharghur), and Natal coal at that port during the last three years:—

	Bengal.	Cardiff.	Natal.
	£ *s. d.*	£ *s. d.*	£ *s. d.*
1907	1 0 11	1 8 11	—
1908	1 0 10	1 8 0½	1 2 2⅔
1909	17 11	1 3 6	1 0 6⅙

Prices for coal at Bombay, 1913.

The following is an extract of coal prices at Bombay in September last (1913) September 6th:—

	Rupees.
Powell Duffryn *Cardiff*	23½
Davidson's *West Hartley*	21½
Desharghur *Bengal*	18½
Kawrie's *Desharghur*	17½
Heilger's *Standard*	16½
Hraham's *Natal*	18½
Transvaal *Witbank*	19
Desharghur Equitable	18⅓

Recent Freight Quotations:—

Cardiff to Bombay, 6,600 tons, 13*s.* 10½*d.*, 1913.
" Las Palmas, February 1914, 6*s.* 6*d.*
" Colombo, June 1913, 12*s.* 6*d.*
" " February 1914, 8*s.* 6*d.*, 5,000 tons.

Instances of freights paid on shipments of coal from Durban:—

1910. Singapore, 6*s.*, 6*s.* 1½*d.*, 6*s.* 4½*d.* (free to ship).
1911. Penang, 5*s.* (free to ship).
Colombo, 5*s.* 6*d.*, less 2 per cent. (free to ship).
1912. Singapore, 7*s.* 6*d.* (free to ship).
1913. Penang, 9*s.* (free to ship).
Singapore, 8*s.* 9*d.* (free to ship).
Tuticorin, 8*s.* 6*d.* " "
Bombay, 7*s.* 6*d.*, 7*s.* 3*d.* (free to ship).

East Coast.—Zanzibar, lowest freight for small lots about 12*s.* 6*d.*

Bombay and Karachi together import about two million tons annually of sea-borne.

Conditions under which the Coal is conveyed from the Mines to the Coast, and the Possibility of Improving these Conditions.

Present Conditions.—The coal is mostly conveyed to the coast in wagons of 30 to 35 tons carrying capacity. Ladysmith is an important railway centre in Northern Natal, some 60 to 80 miles from most of the colliery stations. Here trains of coal are made up, and, according to present arrangements, I understand that twelve fast trains are scheduled for despatch from that station daily. They are timed to take from 23 hours to 26 hours to get through to South Coast Junction and other storage sidings, making the time from Glencoe Junction (north of Ladysmith), the distributing centre nearest the Mines, from about 27 to

30 hours. These trains carry most of the tonnage, the remaining proportion being dealt with by the ordinary goods and coal general service, taking, I believe, *under the most favourable conditions*, from 30 to 40 hours.

It would be a great boon to the industry if these trains always worked according to the time-table. Unfortunately, owing to the nature of the railway being almost throughout a single line, mishaps, which are pretty frequent, interfere seriously with the due running of trains, and the coal often takes a considerably longer time to come to the port. The working of the traffic is subject to all the inconveniences and difficulties incidental to single-line working.

To avoid the breaking up of loads of trains, banking or assisting engines are provided to run over certain sections where the grade is most severe. Under this arrangement, train loads are now only reduced or increased at Ladysmith, Maritzburg, or Cato Ridge, and at no part of the journey is the load less than 650 tons.

The size of locomotives and the tractive power are steadily increasing. The heaviest type can convey 1,000 tons, gross load, into Ladysmith, and with the gradual introduction of higher tractive power south of Ladysmith there would be a corresponding increase in the acceleration of transit.

By continuous expenditure in recent years in increasing the radii of curves and improving gradients by increasing the tractive power of locomotives, the capacity of the railway has increased very considerably. Extensive improvements as to the main line are still in progress, the cost of which will run into high figures. When complete, the line will be capable of carrying a much larger tonnage.

A very decided conflict of opinions has manifested itself between the leading men and associations in Natal, on the one hand, and the Government, on the other, as to the railway policy in Natal. The Government have committed themselves to an enormous expenditure on improving the present main line, and as a result it will increase the total distance but with greatly increased carrying capacity. All the grades of one in thirty, which have for years handicapped the service, will be abolished, and a minimum of one in fifty or better established. Durban and other interests, including influential public men, have for years advocated building a new line, shorter by some fifty miles than the improved main line, and having satisfactory grades between Durban and the coal districts. This, it is contended, will not only accelerate the service, but considerably cheapen the cost and bring rates down. The Government, however, have finally decided to continue their policy of spending large sums on improving the main line. Such a matter as this seems to be one that could be more suitably dealt with by a railway board having independent jurisdiction.

On arrival in the neighbourhood of Durban, the trucks are placed in storage sidings until required, either at the Bluff wharf, or at the Point, wherever the steamer may be.

Bunker coal for steamers trading with the port is mostly shipped by hand at the Point side, and steamers calling for coal only and taking coal cargoes are coaled at the Bluff (on the opposite side) by mechanical loading appliances. On the Point side, the trucks are shunted to the wharf alongside the vessels, and the coal conveyed on board by coloured labour in baskets in the way usual at most ports. Lighters alongside are also sometimes used. The minimum rate of loading with the Bluff appliances exceeds some 4,000 tons a day of 24 hours.

Railway improvements required include—

(1) Improvement in the grades of the railway and increase of size of curves—both now proceeding.

(2) Further increase in tractive power of locomotives.

(3) Increase in number of locomotives and trucks available for traffic.

(4) Increased bin accommodation, as well as the provision of means to make bin (10,000 tons capacity) now at Bluff more useful to release trucks.

Additions to the Bluff coaling appliances were sanctioned in 1913, and the tender of Messrs. Fraser and Chalmers accepted. The new appliances will include a dumper capable of lifting a truck of 50 tons capacity with an over-all length of 50 feet. A belt conveyor will also form part of the equipment. The plant will arrive shortly in the Colony. The expenditure on this work, some 70,000*l.*, was sanctioned early in 1912.

(5) In the future, and we hope the near future, the necessity for doubling the main line or the building of a new double line by a shorter route will become an important and urgent question. By its geographical position and its mineral and agricultural resources, Durban ought to become the chief port of the Union, and will, no doubt, become the chief port whenever improvements possible are provided. Moreover, it is the Union port nearest to the great industrial centre of the Transvaal.

The railway disabilities are domestic questions, but they have an important influence on output. The losses and difficulties incidental to an insufficient and irregular supply of railway trucks and locomotives have recurred from time to time for years, notwithstanding that the Administration is constantly increasing the supply. The supply is often insufficient or not evenly distributed over the working day, but collieries have to provide a staff adequate for a full supply.

The want of adequate storage capacity other than in trucks so as to release the trucks for service to provide a reserve of coal to meet certain demands has been an urgent necessity for years.

Port Charges on the Shipment of Coal.

The port charges on coal are (per ton of 2,240 lbs.):—

For loading, trimmed into bunkers:—	*s.*	*d.*
At Bluff by appliances, export coal	0	7½
At Bluff by appliances, bunker coal	1	0
At Point by hand (in baskets) bunker:—		
Day service	1	3
Night service	2	6
Combined day and/or night service	1	9

Steamers calling solely for export and bunker coal are allowed a rebate of 50 per cent. in harbour dues, or at option may pay 6*d.* per ton up to 1,000 tons and 3*d.* per ton over 1,000 tons of coal taken.

Other port charges are:—

Harbour dues, inclusive of pilotage:—	*d.*
For each registered ton net to 400 tons	9
Over 400 tons and up to 1,500 tons	7
Over 1,500 tons and up to 2,000 tons	4
Over 2,000 tons	2

Light dues are 2*d.* for the first 500 tons and 1*d.* for the balance over 500 tons net register.

No light dues are charged on steamers calling for coal only.

Railway Rates for Coal.

Annexure A. gives a complete list of the rates for coal for shipment from Transvaal collieries to the port of Lourenço Marques and from Natal collieries to Durban.

Annexure B. is a list of rates for coal for inland consumption, worked out per ton per mile for specified distances. Lourenço Marques, Durban, and Cape Town are competitive ports for shipment of coal. Transvaal ship coal *viâ* Lourenço Marques for bunkers as well as for export, and despatch coal to some extent overland for ships' bunkers at Cape Town. All Natal coal taken by steamers in South Africa is sent *viâ* Durban; hardly any is sent overland.

Annexure C. shows the rates for coal from all collieries in the Union to Cape Town, with which Natal is very dissatisfied. Representations have been made to Government by coalowners, Chamber of Commerce,

and the Durban Corporation on the inequality of railway rates, but no relief as yet has been given.

We consider that the rates give an undue advantage to the Transvaal collieries sending coal overland as compared with the combined rail and sea routes *viâ* Durban.

Witbank is the principal coal-sending station in the Transvaal; Hatting Spruit in Natal.

Facilities offered by Durban and Cape Town as Bunkering Ports.

The greatest facility is the cheapness of coal at Durban compared with Cape Town, and the quickness with which coal can be loaded. Even when freights are lowest coal can be sold cheaper in Durban than in Cape Town, trimmed into bunkers, by 6*s.* or 7*s.* a ton.

The lowest price paid by the Natal collieries to the Union-Castle for carrying large quantities of coal to Cape Town was 5*s.* 3*d.* in 1910, when freights were exceptionally low. Freights paid them since have been—

1911 - - -	6*s.*
1912 - - -	6*s.*
1913 - - -	8*s.*
1914 - - -	7*s.*

The cost of putting on board at Durban ex truck is 1*s.* 3*d.* by hand on the Point side, or 1*s.* per ton, day work, on the Bluff side (bunkers). For export coal 7⅛*d.* per ton. Coal bunkered in Durban is much less handled than Natal coal shipped to Cape Town and bunkered at that port.

The following is a comparison of the prices of the same coal for bunkers at Durban and Cape Town respectively :—

	Durban.	Cape Town.
Class "A" coals	From 16*s.* to 17*s.* plus, say, 1*s.* 3*d.* loading.	From 25*s.* to 26*s.*, trimmed into bunkers.
Class "B" coals	15*s.* to 16*s.* plus, say, 1*s.* 3*d.* loading.	24*s.* 6*d.* to 25*s.* 6*d.*, trimmed into bunkers.
Class "C" coals	14*s.* 3*d.* to 15*s.* 3*d.* plus, say, 1*s.* 3*d.* loading.	23*s.* 6*d.* to 24*s.* 6*d.* trimmed into bunkers.

There is also at Durban a much larger supply of coal available.

Durban, therefore, offers a distinct economy over Cape Town, especially when freights Durban to Cape Town are high, thereby increasing the cost of Natal coal at latter port.

At the present time the difference in favour of Durban is about 8*s.* a ton, or 1,400*l.* for a large steamer like the "Ulysses," taking 3,500 tons bunker coal. Even with substantially reduced freights to Cape Town, the saving would be 6*s.* per ton or over 1,000*l.* for the bunkering of the same ship.

Annexure A.

EXPORT AND BUNKER COAL IN TRUCK LOADS.

The rates are :—

(A) *From Transvaal Collieries to Lourenço Marques.*

Mileage to Lourenço Marques.	Station.	Colliery.	Rate per 2,000 lbs. to Lourenço Marques.
			d.
212	Belfast - -	Zwaartkopjes - -	67½
248	Breyten - -	Breyten - - -	71½
260	Uitkyk - -	Vaalbank - - -	71½
267	Ermelo -	Bellevue - - -	71½
267	Ermelo - -	Mary Anthracite - -	72
269	Olifants River -	Uitspan - - -	73
276	Witbank - -	Coronation - - -	73
276	Witbank - -	Middelburg Coal and Coke Co. - - -	73
276	Witbank - -	Transvaal and Delagoa Bay - - - -	73
276	Witbank - -	Witbank - - -	73
276	Witbank - -	Tavistock - - -	73
282	Blackhill - -	Anglo French Exploration Co. - - -	75
282	Blackhill - -	Cassel Landau - -	75
287	Wakefield -	Premier Coal Estates -	76
288	Minnaar - -	Tweefontein - - -	76½
292	Oogies - -	Transvaal Coal Trust -	77½
295	Crown Douglas	Crown (Rogerston) -	78
337	Geduld - -	Welgedacht Exploration Co. - - - -	89½
	Apex - -	Apex - - - -	91½
397	Brakpan - -	Rand - - - -	92
353	Springs - -	Clydesdale - - -	93½
353	Springs - -	De Rietfontein - -	93½
358	Endicott - -	Vischkuil - - -	95

Freight must be prepaid.

The rates are :—

(B) *From Natal Collieries to Point or Wests.*

Mileage to Point.	Station.	Colliery.	Rate per 2,240 lbs. to Point or Wests.
			s. *d.*
309	Hlobane - -	Vryheid R.C. & I. Co. -	7 8
270	Newcastle -	Lennoxton - - -	6 8½
270	Newcastle -	Newcastle - - -	6 8½
298	Utrecht - -	Utrecht - - -	7 3
262	Ingagane - -	Ballengeich - - -	6 8
248	Dannhauser -	Durban Navigation -	6 8
248	Dannhauser -	Cambrian - - -	6 8
241	Hatting Spruit	Hatting Spruit - -	6 8
241	Hatting Spruit	Natal Navigation - -	6 8
241	Hatting Spruit	St. George's - - -	6 8
241	Hatting Spruit	Glencoe - - -	6 8
241	Talana - -	Dundee - - -	6 8
241	Talana - -	Dewars - - - -	6 9
249	Malongeni -	Talana - - - -	6 8
233	Glencoe Junction	South African - -	6 5½
220	Waschbank -	Burnside - - -	6 1
216	Wessels Nek -	Ramsay - - -	5 11½
216	Wessels Nek -	Natal Steam - - -	5 11½
208	Elandslaagte -	Elandslaagte - - -	5 9
169	Somkele - -	Zululand - - -	4 8½

To obtain the benefit of the above rates senders must declare on consignment notes that the coal is for bunker or export purposes.

(C) Subject to such conditions and on production of such proofs as may be prescribed from time to time by the Administration, a rebate is granted of 1*s.* per ton of *2,000 lbs.* in respect of S.A. coal shipped oversea *as cargo* from Union Ports and Lourenço Marques. *No rebate is granted on coal placed on board vessels for bunkering such vessels.*

Forms of application for this rebate may be obtained from District Transportation Officers.

Annexure B.

Examples of railway rates in the Union of South Africa, for varying distances for local trade (except

the longer distances which apply, also subject to a shilling rebate, to shipment coal):—

Miles.	Rate per 2,000 lbs.	Per ton per mile.
	d.	*d.*
10	15	1·5
20	28	1·4
30	35	1·17
40	40	1·00
50	47	·94
60	53	·88
80	63	·79
100	70	·70
150	77	·51
160	80	·50
170	83	·49
200	100	·50
240	120	·50
270	124	·46
300	126	·42
400	152	·38
500	165	·33
600	167	·28
700	169	·27
800	171	·21
900	171	·19
1,000	175	·17

Maximum rate from any station to be not greater than the rate from such station to Cape Town, thus:—

	Miles.	Town.	Shipment.
Witbank and Cape Town	1,047	14*s.*	13*s.*
per ton per mile	—	·160*d.*	·149*d.*
which is the maximum rate from Witbank for any distance.			
Hatting Spruit and Cape Town	1,116	14*s.* 10*d.*	13*s.* 10*d.*
per ton per mile	—	·159*d.*	·139*d.*
which is the maximum rate from Hatting Spruit for any distance.			

Annexure C.

COMPARISON of RATES for COAL (per 2,000 lbs.) to operate from October 1st, 1913, arranged in order of distance from Port. (Subject to a rebate of 1*s.* per ton if shipped.)

Name of Station.	Name of Colliery.	Cape Town and Table Bay Docks.		Province.
		Miles.	Rate.	
			s. *d.*	
Coalbrook	Clydesdale Collieries	949	14 0	O.F.S.
Viljoen's Drift	Vereeniging Estates	958	14 0	Do.
Apex	Apex	979	14 0	Transvaal
Brakpan	Rand Collieries	979	14 0	Do.
Geduld	Welgedacht	986	14 0	Do.
Springs	Clydesdale Springs	987	14 0	Do.
Do.	De Rietfontein	987	14 0	Do.
Endicott	Visch Kuil	1,000	14 0	Do.
Balfour	South Rand	1,022	14 0	Do.
Oogies	Transvaal Coal Trust	1,030	14 0	Do.
Minaar	Tweefontein	1,035	14 0	Do.
Blackhill	Anglo-French	1,041	14 0	Do.
Do.	Cassie Landau	1,041	14 0	Do.
Witbank	Coronation	1,047	14 0	Do.
Do.	Middelburg C. & C. Co.	1,047	14 0	Do.
Do.	Transvaal and Delagoa Bay	1,047	14 0	Do.
Do.	Witbank	1,047	14 0	Do.
Do.	Uitspan	1,050	14 0	Do.
Do.	Tavistock	1,050	14 0	Do.
Wakefield	Premier	1,057	14 1	Do.
Crown Douglas	Crown Rogerson	1,057	14 1	Do.
Uitkyk	Vaalbank	1,064	14 2	Do.
Do.	Uitkyk	1,064	14 2	Do.
Elandslaagte	Elandslaagte	1,078	14 4	Natal.
Wessels Nek	Natal Steam	1,086	14 6	Do.
Do.	Ramsay	1,086	14 6	Do.
Waschbank	Burnside	1,090	14 6	Do.
Glencoe Junction	South African	1,105	14 9	Do.
Breyten	Breyten	1,110	14 10	Transvaal.
Talana	Dundee (Talana)	1,111	14 10	Natal.
Hatting Spruit	Natal Navigation	1,111	14 10	Do.
Do.	St. George's	1,111	14 10	Do.
Do.	Glencoe	1,110	14 10	Do.
Do.	Hatting Spruit	1,110	14 10	Do.
Talana	Dewar's Anthracite	1,114	14 10	Do.
Dannhauser	Natal Cambrian	1,118	14 11	Do.
Do.	Durban Navigation	1,118	14 11	Do.
Malongeni	Wallsend (Natal)	1,119	14 11	Do.
Belfast	Zwaartkoppies	1,126	15 0	Transvaal.

APPENDIX III.—*continued.* [*Railways. Harbours. and Coal for Bunkering and Shipment.*

Name of Station.	Name of Colliery.	Cape Town and Table Bay Docks.		Province
		Miles.	Rate.	
			s. d.	
Ermelo	Belle Vue	1,128	15 0	Transvaal.
Ingagane	Ballengeich	1,130	15 1	Natal.
Ermelo	Mary Anthracite	1,134	15 1	Transvaal.
Newcastle	Newcastle	1,137	15 2	Natal.
Do.	Fairleigh (Newcastle)	1,140	15 2	Do.
Do.	Lennoxton	1,140	15 2	Do.
Utrecht	Utrecht	1,163	15 6	Do.
Vryheid	Vryheid	1,180	15 9	Do.

Natal Associated Collieries. Durban,
7th September 1913.

Annexure D.

COMPARISON of RATES for COAL (per 2,000 lbs) to operate from October 1st, 1913, arranged in order of distance from Port (subject to a rebate of 1s. per ton if shipped).

Name of Station.	Name of Colliery.	Port Elizabeth and Algoa Bay.		East London and Buffalo Harbour.		Province.
		Miles.	Rate.	Miles.	Rate.	
			s. d.		s. d.	
Coalbrook	Clydesdale Colliery	651	14 0	604	14 0	O.F.S.
Viljoen's Drift	Vereeniging Estates	660	14 0	613	14 0	Do.
Apex	Apex	717	14 0	670	14 0	Transvaal.
Brakpan	Rand Collieries	719	14 0	672	14 0	Do.
Geduld	Welgedaeht	724	14 0	677	14 0	Do
Springs	Clydesdale Springs	725	14 0	678	14 0	Do.
Do.	De Rietfontein	725	14 0	678	14 0	Do.
Endicott	Visch Kuil	737	14 0	691	14 0	Do.
Balfour	South Rand	745	14 0	699	14 0	Do.
Oogies	Transvaal Coal Trust	768	14 0	721	14 0	Do.
Minaar	Tweefontein Colliery	773	14 0	726	14 0	Do.
Blaekhill	Anglo-French	779	14 0	732	14 0	Do.
Do.	Cassie-Landau	779	14 0	732	14 0	Do.
Elandslaagte	Elandslaagte	780	14 0	734	14 0	Natal.
Witbank	Coronation	785	14 0	738	14 0	Transvaal.
Do.	Middleburg C. and C.	785	14 0	738	14 0	Do.
Do.	Transvaal and Delagoa Bay	785	14 0	738	14 0	Do.
Do.	Witbank	785	14 0	738	14 0	Do.
Do.	Uitspan	788	14 0	741	14 0	Do.
Do.	Tavistoek	788	14 0	741	14 0	Do.
Wessels Nek	Natal Steam	788	14 0	742	14 0	Natal.
Do.	Ramsay	788	14 0	742	14 0	Do.
Waschbank	Burnside	792	14 1	746	14 1	Do.
Wakefield	Premier	795	14 1	748	14 1	Transvaal.
Crown Douglas	Crown Rogerson	795	14 1	748	14 1	Do.
Uitkyk	Vaalbank	802	14 2	755	14 2	Do.
Do.	Uitkyk	802	14 2	755	14 2	Do.
Glencoe Junction	South African	807	14 4	761	14 3	Natal.
Hatting Spruit	Natal Navigation	813	14 4	767	14 3	Do.
Do.	St. George's	813	14 4	767	14 3	Do.
Do.	Gleucoe	813	14 4	765	14 3	Do.
Do.	Hatting Spruit	813	14 4	767	14 3	Do.
Talana	Dewar's Anthracite	816	14 4	770	14 3	Do.
Dannhauser	Natal Cambrian	820	14 4	774	14 3	Do.
Do.	Durban Navigation	820	14 4	774	14 3	Do.
Malongeni	Wallsend	821	14 4	775	14 3	Do.
Belfast	Zwaartkopjies	864	14 5	817	14 4	Transvaal.
Breyten	Breyten	848	14 4	801	14 4	Do.
Ermelo	Belle Vue	866	14 5	819	14 4	Do.
Ingagane	Ballengeich	832	14 4	786	14 3	Natal.
Newcastle	Newcastle	839	14 4	793	14 3	Do.
Do.	Fairleigh (Newcastle)	842	14 4	796	14 3	Do.
Do.	Lennoxton	842	14 4	796	14 3	Do.
Utrecht	Utrecht	865	14 5	819	14 4	Do.
Ermelo	Mary Anthracite	872	14 5	825	14 4	Transvaal.
Vryheid	Vryheid	882	14 5	836	14 4	Natal.

Natal Associated Collieries, Durban.
8th September 1913.

APPENDIX IV.

Statement furnished to the Commission by Mr. Herbert Warington Smyth, M.A., Secretary for Mines, for whose Evidence *see* p. 1-8 of [Cd. 7707].

South African Coal Bunkering and Export Trade.

Output.—The total output for South Africa during 1912 was 8,117,000 tons, valued at 1,999,000*l.* To this output the Provinces of the Union contributed as follows:—

	Tons.	Total Value.	Value per Ton.		
		£	*s.*	*d.*
Transvaal - -	4,751,850	1,044,986	4	4·78
Natal - - -	2,765,068	771,755	5	6·99
Orange Free State	525,459	141,380	5	4·57
Cape - - -	74,701	41,257	11	0·55

The Transvaal produced 2,960 tons of coke, value 3,469*l.* Natal produced 5,000 tons of coke, value 8,511*l.* The Transvaal companies produced 25,895 gallons of tar, value 806*l.*

The Transvaal Coalfields.—To the above output in the Transvaal the Middelburg and Witbank coal area contributed 76 per cent., and the Springs-Brakpan area 13 per cent. The former coalfield is that which is best situated for an export trade, and it is in direct communication by rail with the port of Lourenço Marques, distant 276 miles from Witbank. The run to the coast is chiefly downhill, with the exception of a climb of 1,100 feet from Witbank to Belfast (altitude 6,463 feet).

The Springs-Brakpan area, which contributes about 13 per cent. of the Transvaal output, finds its market mostly on the Witwatersrand goldfields.

The Natal Coalfields.—In Natal 84 per cent. of the total coal production comes from the Dundee area in the Klip River county, where the coalfield extends for a distance of some 70 miles and lies athwart the main line.

The Railway Communication to the Coast.—The coalfield is served by a single line to the port of Durban, distant 239 miles. The run to the coast is a heavy one for such a class of traffic. Hattingspruit, which may be taken for convenience as the centre of the coal district, is at an altitude of 4,298 feet. The line drops from this altitude to 3,156 feet at Colenso, and then rises over mountain country to an altitude of 5,035 feet at Dell, rising and falling to Nottingham Road 4,807 feet, and thence downwards to Maritzburg 2,218 feet, which is 71 miles from Durban. From an altitude of 2,099 feet after leaving Maritzburg the line rises to 3,006 feet at Thornhill Junction, and then with some variations falls steadily towards Durban to sea-level.

The difficulty of getting the coal from the Natal coalfields to the coast is under the present circumstances a considerable one. There has in the past been inevitably a serious congestion on the main line, and this fact, coupled with the want of rolling-stock and the absence of good bin accommodation, has frequently necessitated restricting output at the collieries.

The suggested Alternative Route.—The Natal main line is famed for the mountainous character of the country which it crosses, for the very steep gradients and short radius curves necessary to overcome the obstacles on the present main line route, and these have given rise to a loud demand from persons interested in the coal trade for an alternative route to the coast.

It is argued by supporters of this route that costly deviations and increase in the number of sidings will never make the present main line satisfactory, and that even a considerable increase in the actual amount of rolling-stock available for the trade will not clear the line of the congestion which has existed in the past, even with the aid of additional sidings.

The route proposed is by way of the Tugela Valley, which would take the line to the north coast railway without any serious altitude having to be negotiated, and the course would then follow the present coast line into Durban, with the result that the distance would be shortened, haulage costs per mile would be considerably reduced, and the congestion which has always existed on the main line would be entirely avoided, while a wholly new district with considerable possibilities both from a mining and agricultural point of view would be opened up.

Running Time.—The average time taken by trucks at present to the coast is understood to be between three and four days from the Dundee area. The amount of standing time for these trucks must be very high, as on arrival at the quayside they are again detained standing with coal until the mineral is required to be placed on board ship.

The objection to a large increase in the present bin accommodation at the collieries or at the port is the breakage caused to the coal in double handling. There is no doubt that Natal coal is peculiarly friable and suffers a great deal in this respect if constantly handled and tipped into bins at both ends of the journey.

Bunkering and Export Tonnages.—The total amount of coal disposed of for bunkering and export during the last three years is as follows:—

	Bunkering.		Cargo.	
	Tons.	Value.	Tons.	Value.
		£		£
1911	1,426,586	1,027,731	82,536	51,276
1912	1,413,222	1,067,663	166,992	106,157

	Bunkering and Cargo.	
	Tons.	Value.
		£
1913	2,307,782	1,389,698

Countries of Export.—In 1912 India and Ceylon took 58 per cent. of this export, as against 18 per cent. for 1911: East African ports and Egypt took 24 per cent., as against 29 per cent. for 1911: Straits Settlements and Dutch East Indies took 4 per cent., as against 32 per cent. for 1911. Details for 1913 are not yet completed.

Prices at Durban.—Regarding prices at which coal is sold f.a.s. Durban, the following figures representing one large colliery in Natal for bunkering contracts will be of interest:—

1907 - - -	17*s.*	per long ton.
1908 - - -	18*s.*	,,
1909 - - -	16*s.*	,,
1910 - - -	14*s.* 6*d.*	,,
1911 - - -	14*s.* 6*d.*	,,
1912 - - -	14*s.* 9*d.*	,,
1913 - - -	16*s.* 6*d.*	,,
1914 - - -	17*s.*	,,

The above are all subject to rebate from 3*d.* to 9*d.* per ton according to the quantity taken and are for bunkering coal under contract for one year.

The figures for the years 1910–12 inclusive cover the period of most serious competition in the Natal trade, which ended by the formation of an association of Natal collieries.

The Natal Coalowners Combine.—This Association was formed and is renewed from year to year with a view to regulating the selling price of coal and it controls the following collieries in Natal: Ballengeich, Burnside, Elandslaagte, Glencoe, Natal Navigation, Natal Cambrian, Natal Steam Coal Company, Newcastle, St. George's, South African, the total output for these collieries being over 150,000 tons per month. Five collieries were prevented from joining such a combination on account of two, Hattingspruit and the Durban Navigation, being owned by the Union-Castle Co., two others, the Hlobane and Utrecht, having clauses in their agreements with the Railway Administration preventing them from joining combinations, and the fifth, the Ramsey, supplying coal to the Free State. The total output of these five is about 74,000 tons a month.

Causes of Increase of Price.—The price for coal went up in 1913 all over the world, so that the increase for this year in Natal prices was probably not entirely due to the formation of the Association. The price for coal in other parts of the world is being maintained in the 1914 contracts and world conditions in the coal trade will probably justify even higher prices than those quoted for the present year for Natal coal.

Effects of Competition.—The prices quoted during 1910 to 1912 (14*s.* 6*d.*, 14*s.* 9*d.*, f.a.s. Durban) brought most unsatisfactory financial results for the working of the Natal industry. The prices had been allowed to get too low, and few of the collieries were able to pay any dividends, while necessary capital expenditure for improvements in plant and general improvement and increased safety underground were rendered impossible to the management owing to lack of funds. The position in those years could not continue.

Questions have been raised with regard to the influence of the Union-Castle Company on the Natal Associated Collieries during the past year. As a matter of fact, however, the interests of the two parties do not appear to be identical, and the raising of the price for 1913–14 certainly cannot be laid to the charge of the Union-Castle Company, which would be glad to have lower prices if possible.

Prices at Cape Town.—The price of Natal coal at Cape Town, where a considerable amount of coal was sold for bunkering trade during 1913, was 24*s.* to 26*s.*, according to the class of coal, per long ton. The prices for 1914 are understood to be 24*s.* 6*d.* to 26*s.* per long ton. This price has risen a couple of shillings since 1912, but it may be pointed out that freights increased enormously all over the world in 1913, as compared with 1912, and this extra charge was for increased freight, pure and simple.

It would appear that in future the prices for bunker coal at the various ports of the Union will maintain roughly their present figures, with possibly slight advances, as costs of freight generally throughout the world show a tendeney to rise.

General Remarks.—Cape Town will, in the future, be supplied by sea-borne coal from Durban, and by a certain amount of Transvaal coal from the Witbank district, which, however, will not probably be able to be carried the necessary 1,000 miles of railway at any rate which will enable the price at Cape Town to be reduced.

For the bunkering trade generally it would appear that Durban, by its considerable wharfage area and the loading conveniences at that port, by its proximity to the Natal coalfields, producing the best steaming coal in South Africa, and by its geographical position, will remain the centre of the bunkering trade for the majority of ships. The Cape Town trade will depend largely on passenger vessels going direct to Australia and New Zealand, while the Natal bunkering trade will be more widely distributed.

The port of Delagoa Bay is however, better situated for the export trade to the East Coast, India, and the East Indies, and its position will probably enable the Transvaal coalfields to compete successfully with Durban in that class of trade in the future.

Figures* giving comparisons between the Transvaal, Natal, and Cape coal are attached hereto for the confidential information of your Commission.

* Not printed

APPENDIX V.

A.

Information in reference to the Ports and Harbours of South Africa.

Questions by the Royal Commission.	Cape Town.	Port Elizabeth.	East London.	Mossel Bay.	Durban.
1. Navigable depth at entrance, L.W.S.T.?	36 feet L.W.O.S.T.	Port Elizabeth is an open roadstead.	20 feet.	No dock entrance, landing and shipping by tugs and lighters. Landing jetties partly protected from heavy seas by a small breakwater. Good anchorage in the bay.	35 feet 3 inches.
2. Navigable depth and width of channel from entrance to berthing accommodation, L.W.S.T.?	This hardly applies to Table Bay Docks, as there is only the entrance, 250 feet in width, leading directly into a floating basin of 67 acres area. There is also an inner entrance of 100 feet in width and about 400 feet long, leading to the Alfred Basin, 8½ acres in extent.	The depth at the ordinary working anchorage is 6 fathoms.	Depth 24 feet, width 150 feet at entrance widening out to 500 feet opposite West Quay.	——	Width and depth of channel vary, but nowhere is there less depth than 31 feet.
3. Rise and fall of tides:— (*a*) Spring tides? (*b*) Neap tides?	The average range of Spring Tides is 4 feet 6 inches, and the average range of Neap Tides about 2 feet, as recorded on the automatic tide gauge.	(*a*) 5 feet 8 inches (*b*) 2 feet (H.W.O.N.T. is 3 feet 10 inches above L.W.O.S.T.).	(*a*) Springs, 5 feet 6 inches (*b*) Neaps, 1 foot 9 inches	(*a*) 6 feet. (*b*) 3 feet.	(*a*) 6 feet. (*b*) 3 feet 6 inches.
4. What is the maximum depth of water at piers, wharves, or docks, L.W.S.T.?	The maximum depth of water at L.W.O.S.T. is 36 feet at the East Pier.	At the Dom Pedro Jetty one berth gives least depth of water, 21 feet at L.W.O.S.T.	27 feet 9 inches.	10 feet.	38 feet 6 inches.
5. What is the length of pier, wharf, or dock side where such maximum depth of water is available? How does this length compare with the total accommodation at the port?	The length of the East Pier is 786 feet. The litho* attached will show the other berths.	300 feet. This is practically the whole, as the wharves are used for lighterage.	1,000 feet West Quay 500 feet East Quay. One quarter of total.	700 feet frontage 7/10ths.	710 feet. 5½ per cent. of total length.

* Not reproduced.

INFORMATION IN REFERENCE TO THE PORTS AND HARBOURS OF SOUTH AFRICA—*continued.*

Questions by the Royal Commission.	Cape Town.	Port Elizabeth.	East London.	Mossel Bay.	Durban.
6. What are the dimensions of the largest vesssl which can be (*a*) berthed, (*b*) repaired, under existing conditions?	(*a*) The largest vessel berthed was the White Star liner, "Ceramic," at the East Pier. Her dimensions are 675 feet in length by 68 feet beam and her draught at the time 31 feet 9 inches. (*b*) The largest vessel repaired was the "Everton Grange," of 8,096 tons, with dimensions 475 feet B.P. by 56·1 feet by 33·5 feet. She was put into dry dock and repaired after having been ashore. Also on a prior occasion the R.M. steamer "Norman," 490 feet B.P., was dry docked. The R.M.S., "Kildonan Castle" and "Kinfauns Castle" are the largest ships that the dry dock could accommodate, their dimensions being 515·3 feet B.P. by 59·2 feet by 32·4 feet, and tonnage 9,664.	(*a*) 300 feet. (*b*) There is no dry dock at Port Elizabeth and there are few facilities for repairs of any magnitude.	(*a*) s.s. "Monarch," 475 feet long; s.s. "Galway Castle," 8,010 tons gross register. (*b*) Patent slip accommodates up to 1,000 dead weight; cradle, 200 feet long.	(*a*) None. (*b*) Tugs, whaling and fishing trawlers.	(*a*) 1,000 feet long, 32 feet draught. (*b*) 8,000 tons dead weight.
7. How much capital expenditure has been incurred hitherto on the port?	3,926,114*l.*	To end of July 1913, 1,477,537*l.*	Approximately 2,090,000*l.*	Total to 31 March 1913, 139,762*l.* 18*s.* 11*d.*	£4,100,593. 31 March. 1912.
8. What are the present charges— (*a*) for interest on capital, (*b*) for maintenance, (*c*) for improvements (paid from Revenue)?	(*a*) 3½ per cent. on a fixed figure of 3,460,227*l.* at Union, plus net capital expenditure since Union, so that it is a fluctuating figure monthly. On the basis of the interest chargeable for July, the total amount for a year would be 124,174*l.* 7*s.* (*b*) *Expenditure for year ended August*, 1913:—	(*a*) Average for 12 months, 47,580*l.* (*b*) Average for 12 months, 62,544*l.* (*c*) Included in maintenance.	About 4,500*l.* per month. „ 4,000*l.* „ „ „ 2,620*l.* „ „	(*a*) 3,950*l.* per annum (approximately). (*b*) 3,350*l.* per annum (approximately).	(*a*) 140,369*l.* (*b*) 160,536*l.*
9. What is the present Revenue?	*Revenue—September* 1912 *to August* 1913 (*inclusive*). 349,845*l.* 17*s.* 10*d.*	Average for 12 months, 234,120*l.*	About 170,000*l.* per annum.	For year ending 31st March 1913, 7,428*l.* 0*s.* 3*d.*	1911-12. 219,052*l.*

(*b*) *Expenditure for year ended August*, 1913:—

	£	*s.*	*d.*
Maintenance and upkeep	67,693	12	8
Traffic working -	142,881	7	5
Cartage services -	30,820	19	6
General charges -	21,628	13	11
Depreciation - -	63,120	1	3
	£326,144	14	9

10. Can the channel and depth of water at berths be deepened to 40 feet at L.W.S.T., and can accommodation be provided for vessels of 1,000 feet?	It would not be practicable to deepen the present entrance to 40 feet, though the canting basin is now being dredged to that depth. There is no accommodation for vessels of 1,000 feet in length at present, although a vessel of this length could be berthed at the South Pier if its draught did not exceed 26 feet.	If a breakwater is built there will be almost unlimited accommodation for vessels of any size.	Yes, but vessels of 1,000 feet long cannot at present be turned.	No.	The channel can be deepened to 40 feet. The 38 feet 6 inches berth can also be deepened to 40 feet, but no other berthing accommodation can. Yes, on 35 feet draught.
11. In how long?	,, ,, ,,	Probably within 5 years of the date funds are provided.	10 to 15 years.	——	Approximately 3 years
12. At what approximate cost?	,, ,, ,,	1,500,000*l.*	1,000,000*l.*	——	About 50,000*l.*
13. Would the present charges for maintenance be largely increased by deepening berth accommodation to 40 feet L.W.S.T., and by providing for vessels of 1,000 feet?	No, not greatly.	Yes, considerably. It would be impracticable to increase the depth appreciably without extending the existing wharves into deeper water.	Yes.	Cannot say, as there exist no outer works for the formation of an inner harbour or dock.	No.
14. To what extent are foreshores such as would render an echelon arrangement of wharves practicable?	Our foreshores are unsuitable for the arrangement mentioned.	Under present conditions this would not be practicable.	Not adaptable.	There is ample foreshore for wharves should extensive harbour protection be carried out.	60 per cent. of harbour foreshore is suitable.
15. Observations: Kindly state further essential particulars necessary to show the existing, contemplated, and possible capacity of your port?	A litho* is enclosed showing the existing capacity of the port, the work at present in hand, and new works contemplated. Depths obtainable are also shown, these being marked in blue figures at the various berths. The estimated costs of carrying out these new works are:— £ Reconstruction of No. 2 Jetty - - - - 90,528 (in hand). Reconstruction of No. 3 Jetty - - - - 100,000 (Contemplated.) Provision of outer berth at East Pier and extension of breakwater capping - - - 167,000 (Contemplated.) Protecting arm at South Pier elbow - - 36,000 (Contemplated.)	Attached is copy of a brochure descriptive of Port Elizabeth and its equipment. (Not enclosed.)	*See* plan* showing existing and possible capacity of harbour.	Mossel Bay being considerably exposed to heavy south-east seas, as well as heavy land winds from the westward, would require extensive works to provide sufficient protection for the formation of a still harbour. No such works are, however, at this time contemplated.	Existing facilities at the port can deal with 18,000 tons per day, and the contemplated facilities will increase the capacity by about 3,000 tons per day. The possible capacity of the port is unlimited.

* Not reproduced.

B.

STATEMENT of EXPENDITURE on SOUTH AFRICAN HARBOURS for the Year ending 31st December 1912.

	Table Bay.	Port Elizabeth.	East London.	Mossel Bay.	Durban.
	£	£	£	£	£
Interest on capital	117,024	48,588	50,892	3,828	144,156
Maintenance	62,040	56,976	45,468	3,972	97,056
Traffic	133,176	70,068	52,104	116	9,180
Cartage	31,140	9,060	5,760	—	—
General	13,340	9,144	9,072	180	8,292
Superannuation	6,144	3,204	3,468	24	3,660
Depreciation	63,396	41,580	46,620	1,440	59,208
	426,260	238,620	213,384	9,560	321,552

STATEMENT of REVENUE from SOUTH AFRICAN HARBOURS for the Year ending 31st December 1912.

	£	£	£	£	£
Dues on ships	45,840	540	10,944	—	46,836
Dues on goods and live stock	87,036	52,668	49,004	6,768	83,820
Water	13,824	312	1,536	—	—
Tugs and lighters	10,284	540	24,252	—	11,796
Landing, shipping, and transhipping	169,428	167,184	63,324	—	—
Cranage	8,856	—	3,108	—	18,084
Dry docks and slips	6,636	216	276	—	11,604
Coaling apparatus	—	—	—	—	42,444
Rents	16,896	6,984	3,000	1,236	13,176
Miscellaneous	7,008	732	3,384	12	168
	365,808	229,176	158,828	8,016	227,928

III.—EMPIRE DEVELOPMENT.

CAPE OF GOOD HOPE.

Cape Town, Tuesday, 3rd March 1914.

Mr. JOHN WILLIAM JAGGER, M.L.A., Wholesale Merchant and President of the Cape Town Chamber of Commerce, called and examined.

(*For evidence of this witness on "Land Settlement and Irrigation," on "Steamship, Posts, and Telegraph," on "Railways and Harbours," and on "Fruit"* see *pp.* 6, 60, 102 and 317, *and on "Exhibitions," "Statistics," "General Trade Questions," and "Legislation," see pp.* 124, 127, 145, *and* 181 *of* [*Cd.* 7707].

3264. (**Chairman.**) We should like to hear your views on the question of Imperial Development?—I have given some little thought to it, and I do not see how it is going to work as far as South Africa is concerned. The meaning of the proposal put before you in New Zealand is, as far as I understand it, that suppose any Dominion wants to raise a large loan, she has to put it before a board, and if they approve the proposed loan, a guarantee is given on behalf of the other Dominions as well as of the Mother Country. I think you will find in those circumstances that it will only create friction. Take South Africa, for instance. Suppose we want to raise money at the present time, as we have raised loans during the last two years to the extent of something like 14 millions, are we going to ask this board if we shall raise the money? We would say that the money was necessary and we would tolerate no outside interference.

3265. Not for works which interest two or more of the Dominions?—Where should we be interested with any other Dominions?

3266. Might there not be schemes in which the Mother Country and one or more of the Dominions might be interested. Take the question of the mail service for instance between Australia and South Africa?—Do you mean the property of the State?

3267. Yes.—That would be on a somewhat different basis, in which case we would be jointly interested.

3268. I think it was the idea in this proposal that it should refer to work in which two or more portions of the Empire were interested?—Well, I have been a Member of Parliament for twelve years, and I know what the temper is towards anything in the nature of outside interference, so I am very much afraid of the proposal.

3269. And you do not think the economy which would be obtained would compensate for that?—No, I think it would lead to friction.

3270. **(Mr. Sinclair.)** I think you desire to express a very clear opinion that you think your country should be left to do its own borrowing without any outside interference?—Yes.

TRANSVAAL.

Johannesburg, Friday, 3rd April 1914.

Mr. Howard Wallace Soutter, Mr. Alfred Falkland Robinson, and Mr. Ernest Chappell, J.P., representing the Johannesburg Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Migration, Land Settlement, and Irrigation," see p. 46; on "Posts, Telegraphs, and Steamships, p. 81; on "Bills of Lading," p. 91; on "Railways, Harbours, and Coal for bunkering and shipment," p. 140, of this volume; and on "Exhibitions," see p. 124; on "Statistics," p. 130; on "General Trade Questions," p. 173; and on "Legislation," p. 183 of* [*Cd.* 7707].)

The following extract from a letter from the Johannesburg Chamber of Commerce to the Commission dated February 4th was read by Mr. Soutter:—

Empire Development and Organisation.

The Chamber agrees with the desirability of the appointment of a permanent executive committee of the Imperial Conference to carry out the decisions of such Conference and provide for continuity of the work.

With regard to the proposals—

(*a*) for the establishment of a board and creation of a joint fund for the general purposes of the development of the Empire and its resources; and

(*b*) for a board to assist in the raising of loans for development purposes, on the security of all Dominions.

The Chamber doubts whether it would be practicable to carry these ideas into effect, as the several Parliaments within the Empire would each require to exercise absolute control over their finances, and would be unable to delegate such matters to a representative on a board operating in London.

Mr. Robinson read the following further memorandum:—

Memorandum *re* Empire Development and Organisation.

As already indicated, the Chamber views very favourably the proposal for the appointment of a permanent executive commission of the Imperial Conference, to carry out the decisions of such Conference, and providing for continuity of the work.

In regard to the suggestion to the effect that a board should be created under the title of "Imperial Development Board," whose functions would be, *inter alia*, to advise and assist the various Governments in raising loans for the public utility on the most advantageous terms—the Chamber fails to see what useful purpose such a board could fulfil, at any rate in regard to these particular functions. It is clear that the Government of a country on whose behalf the loan is being raised must be the ultimate judges of how that loan should be raised, and the purposes for which it should be used, inasmuch as they would, of course, have to be the security for the loan, and have to provide for the interest thereon. It is even possible that an awkward position might be created by the existence of such a board. Assume, for a moment, that a Colony desired to raise some particular loan. The proposal would be submitted to the board, who, for one reason or another, might feel compelled to return a negative reply. It is conceivable that such a position might be created, and it goes without saying that the desirability of avoiding such a *contretemps* is too obvious to require discussion. Provided that a permanent body, following the lines of the Dominions Royal Commission, could be created, having for its object the constant study and consideration of the various economic problems that arise within the Empire, and restricting its functions to an advisory and propagandist character, nothing but good could possibly result.

3271. **(Mr. Sinclair.)** Do I gather that you think it would be well that there should be in existence a body that would care for trade as far as trade is common to all parts of the Empire?—**(Mr. Chappell.)** That is our opinion, which we endeavour to set forth. We are distinctly of opinion that we suffer a little owing to the want of continuity in those efforts.

3272. Each Colony of the Empire has conditions that are local, but there are broad phases of trade that are common to all parts of the Empire, and you favour the creation of a body that would care for trade in that sense?—Yes.

3273. And you think that each Colony, as regards its borrowings, would prefer to be independent and, so to speak, to sit upon its own bottom?—We think so. We see a great difficulty in arranging any other basis.

3274. And that is the conclusion that your Chamber has arrived at after giving the matter full and careful consideration?—Yes.

IV.—NATURAL RESOURCES.

(a.) Animal and Agricultural Produce.

CAPE OF GOOD HOPE.

Cape Town, Friday, 27th February 1914.

Mr. HYMAN LIBERMAN, of Messrs. Liberman and Buirski, Produce Merchants, called and examined.

3275. **(Sir Alfred Bateman.)** I understand you have been in business here for about forty years?—Yes.

3276. And you have been engaged as agent or dealer?—As dealer.

3277. In ostrich feathers?—Yes, and other produce.

3278. Have you seen anything of the feather industry?—Yes.

3279. Is Port Elizabeth the great centre for feathers?—Yes, a much greater centre than Cape Town.

3280 Where do you deal?—In the Western Province.

3281. You do not deal in the centre of the industry?—The centre of the industry is as near to Cape Town as Port Elizabeth.

3282. I think I noticed a large increase in the export of feathers?—Yes, including both quantity and quality; also value.

3283. How has that been accomplished?—By increasing the number of birds, and, being a prosperous industry, it has naturally attracted people who like to make money if possible.

3284. It is an easy way of getting money?—Yes.

3285. You have to grow lucerne, do you not?—Yes, for the feeding of the ostriches.

3286. And the ostrich does the rest?—Yes. We have to feed the birds well.

3287. And they do not mind being plucked?—Well, of course, I could not say; but we cannot be cruel to the ostrich, or he would not produce the feathers.

3288. There is no permanent injury to the bird?—No. The wing feathers are generally cut when they are about seven months old, because at that period they are in full plumage, and by rolling in the dust and stones they break the plumage. But you leave the quill for another month or longer until it gets dry, and then pull it out.

3289. **(Mr. Sinclair.)** It dies, does it?—Yes. It is quite possible to pull it out at seven months, but very often it bleeds, and the socket where the quill is growing would be filled up with blood, and naturally it would not produce the same kind of feather again. It would be much inferior.

3290. It does not pay to be cruel?—No, or you would not get any return for your money. The body feathers are of much less value. The second or third row in the wings is generally left much longer than the main wing feathers, because they are not affected the same by getting older as the main wing feathers.

3291. We are going to Port Elizabeth, and there, no doubt, we shall get some evidence?—Yes, I daresay. Oudtshoorn is the great district for feathers, but some people send to Port Elizabeth and others to Cape Town. But the industry is within 100 miles of Cape Town, anyhow.

3292. The policy of the Government, I suppose, countenanced by the ostrich feather-growers, is to keep the industry to themselves? You do not allow export?—For the past few years the export of ostriches and ostrich eggs is entirely prohibited by the Union Government, except to the German South-West Africa Colonies.

3293. Then Australia has to build up its own industry without any help from you?—Yes. I hear there are ostriches in America and Australia, also in Egypt; but they do not produce the same feathers.

3294. I see the next subject you are interested in is grain and forage export. There is not much export, is there?—No. At present we are only exporting oats to India and a little maize to Australia. But the reason I have mentioned forage to Australia is because I would like to point out that, although we are large buyers from Australia, they do not treat us in the same way. A few years ago we had orders from them for forage—oat-hay—and they refused to allow same to be landed there because they say we have glanders or horse-sickness in this country. The Government here is prepared to give a certificate that at those places where the oat-hay comes from there is no such thing in existence, but we have not been very successful in getting a definite reply that the Government certificate would be sufficient.

3295. Will not they take a Government certificate?—No. The Chamber of Commerce have cabled about it.

3296. No doubt you are aware that, when it comes to a question of disease, one Government is not inclined to trust any other?—I do not know the policy.

3297. Well, you may take it from me that that is often the policy of the British Government. For instance, the Portuguese have always been anxious to send their cattle to England with a certificate from their Government, but we have always refused. So you must not think that the Australian Government is alone in this?—No, but they expect that we should accept their certificate.

3298. For what?—For goods or produce we import.

3299. Produce that would bring disease?—Yes, we have had oat-hay from them as well.

3300. Has there been disease in Australia at the time?—Yes, I suppose there has been.

3301. Well, I think you have something more about grain bags?—That is another matter. The Chamber of Commerce at Cape Town has communicated very often with them—that is, with reference to the size of the bags that are shipped. They ship their wheat to us in grain bags weighing about 185 lbs. gross with wheat. These bags are useless for South Africa, because where grain, oats, barley, rye, and wheat are grown the bags in general use are 200 lbs. It is also a loss to Australia, because we could give them 1*d.* or 2*d.* more for them if we could use them. The bags are not merchantable here—that is what it comes to. But they say they cannot do it. I suppose it is on account of strikes, and so on. They have to have a certain sized bag.

3302. On account of what?—Labour.

3303. They will not lift the 200 lb. bag, is that it?—They object to more than 200 lbs., but I do not know whether they will object to actually 200 lbs. As I say, it is a loss to them. Good sound second-hand bags are worth 6*d.* each.

3304. You do not pay for the bag?—But we sell it.

3305. You get it for nothing and sell it for 6*d.*?—We, of course, make an allowance when we buy. We

may ship it back to Australia and get about 2*d.* instead of 6*d.*

3306. Have you anything to say about butter? Is it still imported from Australia?—I want to point out that there is plenty of room in this country to produce butter. We import large quantities from Australia.

3307. Your object is to get more produced here, naturally?—While it costs us here 1*s.* 2*d.* per lb., including duty, I think the Australian people are getting about 9*d.* The Cape has a duty of 2*d.* It comes in cold storage and the freight is high, and it must be kept in cold storage here. It would be a good industry for this country.

3308. You have also something to say about the Government regulations affecting seed potatoes. Do you send seed potatoes to Australia?—No, we are importing.

3309. It is your own Government that you complain of?—We ought not, perhaps, to complain about our own Government, but, nevertheless, the opinion of other people would be of some value. Now, according to the regulations, if we import seed potatoes to South Africa from England, Germany, France, or Holland, we always get a Government certificate that the stuff has come from a place where there is no disease. Black rot, I think, is the disease general there. When the seed comes here they fumigate the potatoes.

3310. You insist on fumigation?—The Government does.

3311. For fear of black rot, and so on?—Yes. That system has been in existence two years. Farmers complain and say that the potatoes do not germinate. They do not produce as much as they used to do previously. They think that fumigation has some effect on the potatoes. For instance, they say that whereas the production was formerly 10 to 1, it is now only about 5 to 1.

3312. Do they know that, or do they think it?—I do not know. We have an Agricultural Department here, and the Government think it is not so. The farmers say they believe it is so.

3313. Why do you not get the assistance of the Imperial Institute in London to find out some method of fumigation which would not affect the germinating power of the potato?—Quite so.

3314. Your growers simply go by the experience of the last two years?—Yes.

3315. There may be some other reason?—Yes, there may be. I have the regulations here.*

3316. You have been in communication with the Department of Entomology?—Yes.

3317. **(Mr. Campbell.)** What is the value of an ostrich? Do you have something to do with the raising of ostriches?—No, but I think I am acquainted with present prices. They differ. You can get an ostrich for 5*l.*, and you can pay 100*l.* and even as much as 200*l.* for a bird.

3318. Is that the average price?—No, they go from 5*l.* upwards.

3319. What would be the average price of an ordinary standard bird?—A bird about two years old, I should say, would be worth 30*l.*

3320 Does South Africa import ostriches from elsewhere?—No.

3321. Have they not imported some during the last few years?—I think so, but they were not a success.

3322. Barbary ostriches?—Yes. There have been some from other countries brought in.

3323. You say the feathers of the South African ostrich are better than those of birds in other countries?—Yes.

3324. Is that due to the improvent of the bird by selection and care?—I think this is the natural place for ostriches.

3325. Cape ostriches are naturally a better feathered bird?—Yes.

3326. Has any improvement taken place in the production of feathers?—Yes.

3327. What is that improvement due to?—Better feeding.

3328. Have not steps been taken to improve the birds by breeding and selection?—Yes, very much.

3329. That has had an effect, too?—Yes, naturally.

3330. What would you say is the average difference between the producing value of a bird to-day and that of twenty years ago?—Twenty years ago the feathers were at a high price. At that time the price of a plucking of feathers was 10*l.*—the average price, to-day it is 3*l.*

3331. Has the decline been so great?—The last twelve months it must have declined 2*l.* It was 5*l.*

3332. Will the industry stay where it is now, or do you expect a further decline or a recovery in the market?—The London brokers think that the next market is not going to be a good one.

3333. Does the industry pay on the present basis?—I think so; unless a man has too much of a mortgage on his farm.

3334. Does it pay the farmer?—Yes, I think so.

3335. What capital would a man need to go into the ostrich farming industry here—supposing he were going into it on modern conditions—to get a decent living?—I think an energetic farmer would get about 25 per cent. on his capital.

3336. What capital would he require to engage in the business on an ordinary basis?—If he had 2,000*l.*, I think it would bring him in 500*l.* a year.

3337. He would earn 500*l.* a year net from that?—Yes.

3338. Would you put that as a minimum amount?—Yes. Land for lucerne is rather expensive.

3339. Is there much land in the Union that is capable of growing lucerne?—Yes.

3340. It is grown, I suppose, by irrigation?—Yes.

3341. It is not grown without irrigation, is it?—No.

3342. As to the export of hay to Australia: as a matter of fact, did not the Commonwealth Government first give permission to admit oat-hay and it was afterwards stopped at the instance of the States Governments?—I do not know. We simply received orders as merchants, but when it arrived there it was allowed to land after fumigation.

3343. With regard to grain bags. You say you could not return them to Australia for more than 2*d.*?—About that.

3344. Is that for bags in good condition?—Yes.

3345. While the Australian farmer is paying 7*d.* a bag you can only get 2*d.*?—Yes.

3346. For a bag in good condition landed back?—It only leaves about 2*d.* here.

3347. You say that a good deal could be done in the way of increasing butter production in this country: have you any suggestion to make to the Commission by which the butter industry could be increased?—I do not think so.

3348. You could not suggest any direction in which you think improvement could be effected?—No.

3349. With regard to potatoes: the restrictions in Australia, I suppose, and elsewhere are largely due to the presence of Irish blight in the potatoes. Have you had the blight here?—No, I do not think so.

3350. You have no difficulty in getting a certificate from Australia that the potatoes are grown in a clean district?—We are not importing from there; from Europe.

3351. Then this is simply a general objection to the procedure of the Government here?—Yes.

3352. Who recommended fumigation?—I suppose the Government themselves.

3353. The Government takes advice from some expert?—Yes.

3354. Do you know if they have sought any advice from outside?—I could not say.

3355. **(Mr. Tatlow.)** Do you import any seed potatoes from Ireland?—We have done so, but very little.

3356. Has not the importation of seed potatoes from Ireland been increasing within the last two or three years?—Not in this country.

* Not reprinted.

3357. You know that Ireland has been a country free from potato disease for a long time now?—Yes.

3358. With regard to ostrich feathers: how long is it since the profit of 10*l.* per plucking prevailed?—Twenty years, I daresay.

3359. And now it is 3*l.*?—Yes, the returns.

3360. Has there been a gradual decrease in price, or is it a thing that fluctuates?—It fluctuates very much. But I think it is more than twenty years since it went down from 10*l.* to 5*l.* It has never come up to 10*l.* since.

3361. Has it ever been below 3*l.*?—Yes, about 30*s.*

3362. Does it change much according to the change in ladies' fashions?—Yes.

3363. Is it possible that it will go up again to a much higher price than 3*l.*?—I think it may. I think the production has also something to do with it—overproduction, very likely.

3364. You say that a man could start a farm with about 2,000*l.*, which would bring him about 500*l.* a year?—Yes.

3365. Is that gross income or is there any deduction for working expenses?—I think it would be a gross profit.

3366. What employment does ostrich-farming require? To how many birds how many men?—As far as the birds are concerned they are all kept in paddocks, so there is really little or no expense for labour.

3367. With, say, 100 ostriches, there is not much labour required?—No, except in regard to lucerne and grain.

3368. What is the life of an ostrich for feather-producing purposes?—I am unable to say, but I should say that after ten years the value of the feathers would decline.

3369. How many more years would they continue to yield feathers?—I could not say.

3370. How often are they plucked?—In two years three pluckings.

3371. In regard to the butter you are importing: do you know what is the prospect of an increase of dairy farming in South Africa? Is there any increase?—There may be a small increase, but the individual farmer does not keep enough cows to be able to produce an even quality of butter.

3372. Your interest includes the importation of butter, does it not?—Yes, we import butter, certainly.

3373. Has the dairy co-operative movement not yet started?—They have had some co-operative dairies, and some failed. Some are still in existence.

3374. Have some succeeded?—Yes. Some have, I believe, but very few, I think.

3375. **(Mr. Bowring.)** Do the ostriches commence producing a second crop of feathers immediately you have plucked the first, or is there some delay?—About seven months after the spadonas or chickens.

3376. You pluck at seven months?—Yes.

3377. In another seven months you have another crop?—Yes.

3378. Every seven months you have a production of good feathers?—Yes. You could not pluck after seven months, though, because it takes about six weeks to draw the quills.

3379. The plucking of new feathers does not commence until then?—No.

3380. That continues for about ten years?—Yes.

3381. The life of an ostrich is about how many years—for production?—I should say that after ten years the feathers would decline.

3382. And become more inferior each year?—Yes.

3383. What age does an ostrich ordinarily live to?—I could not say.

3384. Lucerne is the chief food?—Yes, and grain.

3385. Any particular kind?—Yes, barley and maize.

3386. The trade in feathers, you say, is about equally divided between Cape Town and Port Elizabeth?—Port Elizabeth has the larger trade.

3387. Are the ostrich feathers cleaned and manufactured here?—Not much.

3388. Are they exported in their rough state?—The importer in England objects to us interfering with the feathers in any way. We send them in the natural state to the London market.

3389. There are none manufactured here?—There are some manufactured, but very little exported.

3390. A certain amount for local requirements?—Yes.

3391. How many ostriches can be raised satisfactorily to the acre of lucerne?—I could not say.

3392. The butter imports are very considerable from Australia and New Zealand?—Yes.

3393. Do you prefer New Zealand or Australian butter?—I think they compare about equally.

3394. **(Sir Rider Haggard.)** I suppose there is an enormous increase in the numbers of ostriches compared with ten years ago?—Yes.

3395. Are they doubled?—I do not know that, but I should say 50 per cent.

3396. Is there any official return of the number of birds?—I believe the Agricultural Department could give you statistics.

3397. What do you estimate to be the minimum return per bird that would pay you?—If a man has the ostrich industry by itself I do not think it would pay him if he got less than 50*s.*—that is 3*l.* 15*s.* per annum—a plucking and a half.

3398. Then the thing has got down pretty well to bed-rock if it is to remain a payable proposition?—Yes, I think so.

3399. With reference to this enormous drop in the price of feathers, is that represented in what the consumer pays—I mean the buyer of the feather? Does he pay a very much smaller sum?—I do not think so.

3400. Then the middleman is getting the benefit?—Yes, if the market is high. It is a fancy article.

3401. Have the growers formed any co-operative association in London or in England or abroad anywhere in order that they may secure the middleman's profits for themselves?—It is a very difficult thing to get a co-operative society formed.

3402. Is there any?—No.

3403. Is there any movement towards establishing one?—I have not heard.

3404. Would it not be greatly to the benefit of the grower if they secured some part of what must be an enormous profit now being made by the middleman, seeing that each bird now only produces 3*l.* worth of feathers in place of 10*l.*?—Yes, quite so, but what can you do if there are no buyers? If you produce more than is required it would require several millions to stock it. It is not an article of consumption, it must be remembered.

3405. Do you suggest that the buying of ostrich feathers has enormously fallen off among the peoples of the world?—It has fallen off because people in England and on the Continent do not come to the market now. If there is no demand, they do not come to the market and compete. And in an article of this kind, if you take two buyers out of the market, feathers go down 10 per cent.

3406. Is it a fact that the feathers are not being bought in the great civilised portions of the world?—The fashion is against it at the present moment.

3407. About butter, you have informed us that large quantities are imported from Australia and New Zealand?—Yes.

3408. Could not this country produce all its own butter?—I believe it could.

3409. Is there a large increase in the locally-produced butter?—I believe there is a slight increase.

3410. What proportion is produced locally and what is imported?—I could not say. The Government could tell you.

3411. **(Mr. Sinclair.)** I suppose that both competition and fashion are factors in regulating the price of feathers?—Yes.

3412. And if the industry has extended to the degree you tell us of late years, it follows, almost as a matter of course, that there will be a reduction in the price?—Yes.

3413. Because there has been increased production?—Yes.

3414. And, after all, it is production to cater to fashion?—Yes.

3415. You have not seen the conditions of ostrich feather-farming in Australia yourself, I suppose?—No.

3416. You have not seen the birds?—No.

3417. Do you put down the superiority of the South African feather to the superior breeding of the bird?—I think the soil is more suitable.

3418. Is it due, in your opinion, entirely to the breeding of the bird, or are there local conditions such as specially favour the production of the feather here?—Local conditions, I think, are favourable.

3419. So that even given the same bird in Australia, you do not think the same results would be forthcoming?—No.

3420. Does the difference in the soil to which you refer affect the question by the quality of the food it produces, or in what other way?—I do not know, but I think it is a natural condition.

3421. I wanted to probe it a little further. How does the variation in the soil get to affect the bird in regard to the feathers unless it does so through its feeding?—I do not know. Its feeding has something to do with it.

3422. Is that what is in your mind—the quality of the soil produces a lucerne, or corn, with which the bird is fed that induces a superior feather?—Not necessarily.

3423. I would suggest that it is not quite clear as to how in any other way the soil can affect the feather production of the bird, unless you use soil in the sense of climate?—Yes. I think the climate has something to do with it.

3424. You think the climate conduces to a superior feather?—Yes.

3425. In what way does it bring about that result?—Naturally it would be the climate. It is not very likely that it is the soil in the sense of what it produces—the feeding of the bird—because you can bring the foodstuff from other parts.

3426. Very well, you think it is the climate?—Yes.

3427. When you speak of soil as affecting the quality of the feather you really mean climate then, do you?—Yes, because the Egyptian feathers have been on the London market, I suppose, longer than the Cape feathers, and the price of Egyptian feathers is about 20 per cent. lower that the Cape feathers.

3428. However it may be brought about there is some local condition that produces a superior feather?—Yes.

3429. Is this industry, in spite of falling prices, one that you believe is capable of expansion and extension?—I think so.

3430. The lower price obtainable now is still, as I gather from you, a payable price and is not going to prejudicially affect the industry in the future?—No.

3431. As to the fumigation of seed potatoes: Can you tell the Commission whether the Government has experimented as to the effect of fumigation on the germination of the potato?—I do not think so.

3432. Are there here State farms where matters of that sort are given attention to?—I do not know.

3433. You hold the opinion that in some way or other the system of fumigation adopted has affected prejudicially the germination of the seed?—Yes.

3434. And as regards weight of bags: if I understood you aright, what you want to get is a standardization of bags between the Commonwealth and the South African Union?—Yes.

3435. A bag common to both?—Yes.

3436. That would mean some adjustment on your part and on the part of the Commonwealth in order to bring about a standard bag?—Yes.

3437. Can you tell the Commission whether the Agricultural Department or any other authority has put itself into communication with Australia on the subject?—The Chamber of Commerce here have done so.

3438. With what result?—I am not quite certain, but I believe the result was unsatisfactory.

3439. But is not that due to the fact that in Australia the weight is regarded as being unduly great?—Yes.

3440. Have you not some sympathy with a suggestion of that sort?—We consider 200 lbs. is not too heavy for anyone accustomed to carry bags.

3441. 200 lbs. is a pretty heavy load, is it not? The disposition on the part of Australia to reduce the size of the bag is in order, is it not, that the weight that has to be carried by the wharf labourer shall be less?—Yes.

3442. You would have some sympathy with such a suggestion within reasonable limits, I gather?—Yes.

3443. **(Sir Jan Langerman.)** Do you know the value and quantity of seed potatoes imported into this country every year?—I could tell you the price, but not the quantity.

3444. Could you tell us why the Cape growers of potatoes do not grow their own seed?—I think you will find in Europe they always import from outside places.

3445. From where?—England, from Germany or Holland. I think it is an advantage to import from other parts.

3446. As a change?—Yes.

3447. But we do not produce seed potatoes to export?—No.

3448. Why?—Because we get too high a price for table potatoes.

3449. How does the seed potato that we buy here compare with the local price that we get?—You have the duty of 1*s.* 6*d.* a hundred pounds, or 2*s.* That makes it dearer, and then there are freights by the mail boats and packages and cases. It is not the price in France that is so high. Early seed potatoes are imported mainly from there. It is the freight from Bordeaux to Southampton and out here and the packing which makes it so high.

3450. What is the cost of a box of potatoes? Would it be three times the value of a similar box of potatoes sold here for the table? What is the difference in value of the two?—I should say 50 per cent.

3451. Where he would get for his box 5*s.* he gets, say, 7*s.* 6*d.*?—Yes.

3452. With regard to the ostrich industry: you have never bred or farmed ostriches?—No, but I have lived in the districts.

3453. You have told the Commission that in order to get 500*l.* gross a man would require a capital of 2,000*l.*?—Yes.

3454. How would you distribute that 2,000*l.*?—I should say half would go to the farm.

3455. I am talking of a man coming from oversea. He buys the bare farm and wants to start with 2,000*l.*?—He would have to put up with a very cheap building.

3456. 1,000*l.* would go into the ground?—Yes, and ostriches.

3457. How far would that go to get irrigable land to grow lucerne for ostrich feeding. You know they pay as much as three and four hundred pounds an acre for such land in Oudtshoorn?—Yes. They have paid it but I do not think they pay it any more.

3458. What do you think is the lowest price to-day?—You can get good farm land at about 10*l.* an acre.

3459. I do not think you would get an acre under 200*l.* in the Oudtshoorn district?—I am not speaking about Oudtshoorn. Many Oudtshoorn farmers have sold their land there and bought land in other parts where they can get it cheaper.

3460. What do they pay in other parts?—About 20*l.* a morgen.

3461. But really you cannot speak with authority as to what you can do in the way of starting a farm?—No.

3462. **(Mr. Garnett.)** Are you actively engaged in ostrich-breeding?—No.

3463. You say there has been a very great improvement in the type of bird, which I presume has been obtained by careful selection and in-breeding?—Yes.

3464. Have you any knowledge of what the effect of in-breeding has been on the constitution and stamina of the birds?—No.

3465. **(Mr. Tatlow.)** Is the dead bird of any value?—No, with the exception of the feathers.

3466. Is he killed after a certain number of years when the plucking is no longer profitable?—I do not know.

3467. When he is dead there are feathers which may be of some value?—Yes.

Mr. P. G. VAN BREDA, Produce Merchant, called and examined.

3468. **(Sir Alfred Bateman.)** You have come to tell us about certain produce that you are interested in exporting?—Yes.

3469. You have not sent in any précis?—No.

3470. The four items I see here are mohair, hides, skins, and wool?—I have also been connected a deal with ostrich feathers.

3471. Anything that is of interest to the questions we are dealing with we shall be glad to hear about, and in regard to any obstacles that you know of in connection with the Customs and trade regulations in other countries that hinder you, and which you think could be advantageously altered. As regards mohair, it is an increasing trade, is it not?—Yes, although the value of the mohair at present sent away is not so high as in years gone by. The amount has, however, increased. Here in Cape Town we do very little. Port Elizabeth is the great centre. I do not suppose we do one hundredth part here.

3472. You do something in wool?—Yes.

3473. Have you anything to tell us about wool?—That is gradually increasing. We ship from 25 to 30 thousand bales a year from Cape Town alone.

3474. I was here seven years ago, and we were told then by representatives of the wool trade that you suffered in two ways : that you did not get your wool carried as cheaply as you ought to?—Yes, that is so. The freight from Australia was $\frac{1}{4}d.$ and we always paid $\frac{3}{8}d.$ with a rebate. And ours was a lesser distance. The argument against that was, of course, that the shippers could not get return freights for half the year, whereas from Australia they have a full return cargo.

3475. Are those rates in force now?—The $\frac{3}{8}d.$ is still in force, but they have taken off the 10 per cent. primage, and the rebate. They give 10 per cent. discount now.

3476. Another complaint was that your wool was not important enough to govern prices in the European markets?—I do not know. You see, in Australia the wool is brought in by the different farmers. They take it to certain centres, where it is properly selected, whereas here we have no such institution. Each farmer must do his best. If he is running from three to ten bales only, he has not got the appliances to so severely sort his wool as the Australian grower.

3477. Have you any large holdings for the growing of wool? Not like Australia, I suppose, where they extend for hundreds of miles?—No. We have some very influential farmers who have clips of wool from 120 to 150 bales. But that is the highest we have at present, probably.

3478. Is it an increasing trade?—Yes, I fancy so. Certainly I think the get-up of the wool has improved during the last four or five years.

3479. And you have had rather better prices, have you?—Yes.

3480. Do you have to study the conditions in the markets, such as the reduction and taking off of the duty in the United States, for instance, on wool? Does it affect you?—So far it has not done so very much. It has not seriously affected the trade here to my knowledge. They certainly expect it to do so. Contrary to expectation, the market has not gone up as much as the people thought it would.

3481. Perhaps you anticipated that?—It was anticipated, but it did not come off.

3482. What is the proportion of wool exported from this port to the export from the whole of the Union of South Africa?—From Port Elizabeth last year they exported 102,000 bales, whereas from here we only exported 22,000 bales.

3483. It is a smallish proportion?—Yes. Port Elizabeth is geographically the centre of all the wool districts.

3484. Now, passing to hides, is that a big trade here?—That trade is, again, mostly done from East London. That is the geographical centre from the Transkei Territory. We ship very little.

3485. Have you any criticism to make as to the conditions under which hides are exported and the regulations governing the trade, and the freight charges?—No, I do not think I have any complaints to make on that score. I think it is a fair charge which is made at present. They charge $\frac{3}{8}d.$ net.

3486. You have complaints from the consumers in regard to the branding of the hides injuring the leather?—Yes, that is a complaint in this country, certainly.

3487. Has any attempt been made to remedy it?—No, not very much. The chief complaint has been made in regard to the branding of sheep skins with tar. That has been a very serious thing.

3488. In the case of hides, I suppose the legible branding is necessary in order to distinguish the cattle of one owner from those of another?—Yes, that is what I understand it is for.

3489. Is it essential?—I should fancy so. I am not a farmer.

3490. As regards goat skins?—In regard to sheep skins they used to do it all with tar, and, of course, especially in connection with merino sheep, it is most difficult to get all those marks out. They have to be specially cut off in the combing mills, and if by accident these tar pieces get through without being seen they, of course, form a blemish on the manufactured article.

3491. Is the trade in all these four articles increasing here through Cape Town?—Not in a very marked degree, but there is, I think, a gradual increase.

3492. You have the shipping that you require to take the goods to Europe?—Generally speaking we have ample, except at the height of the wool season—in the months of October and November. Then there has been great difficulty in getting all the stuff away.

3493. Now, I understand that one of the existing disadvantages which you experience is the want of co-operation among the farmers in the shipment of their wool?—Well, from a merchant's point of view, of course, we do not believe very much in co-operation, but I think personally that the farmer gets a much better price by selling his wool locally than if he were to ship it himself. Several farmers have done so and they found that they would have done better if they had sold here.

3494. But if the farmer decides not to sell locally, he is at a disadvantage in having to ship small quantities, which he may not have the conveniences for carefully classifying?—Yes.

3495. Can you give us any idea of the respective quantities that are sold locally and that are shipped?—No.

3496. You have no records?—No, I have not. It is a very difficult thing to know whether a man has sent his wool to be shipped or sold locally previously.

3497. You do not know whether the bulk of the wool is sold locally or shipped?—By far the bulk is sold locally.

3498. As regards the prices, is the price which is obtained locally, do you think, as high as that which is obtained by shipping direct to the London markets?—Certainly. The fact is often proved that shippers, after buying wool here and sending to the London market, get account sales with a balance on the wrong side.

3499. They have had too big advances on account, if that happens, I suppose? You merchants would look after that. Now about the damage the fleeces suffer from tar : does the branding not take place after the sheep is shorn?—Yes, it does, but I cannot speak with authority on the matter as I am not a farmer. But I rather fancy you could not brand the sheep immediately after being shorn. You would injure it too much. I should not imagine the branding could take place until there is a certain cover of wool on the sheep, and that would grow out with the wool.

3500. As regards the branding of hides You have had numerous complaints, as I understand?—Yes.

3501. And there is no co-operation, nothing has been done systematically?—No. As I said before, East London is the great centre for that.

3502. Now as regards the demand which was expected from the American market for wools, can you tell us generally what classes of wool are principally grown here—the finer wools or the coarser varieties?—The finer wools.

3503. Those are the wools that America takes?—Yes. But they only took the light conditioned wools on account of the duty before. Now, I do not know what will happen.

3504. You will expect, not unnaturally, that there would be an expansion in the classes of wool that America would want after the removal of the duties?—Yes.

3505. There has not been much time yet to form any opinion?—No, not yet.

3506. Have you any complaints at all to put before this Commission on the question of freights—either as regards wool or anything else that you export from this port?—Well, I think the freights are fairly reasonable now. I do not think we have much to grumble about.

3507. **(Sir Jan Langerman.)** I see you export mohair, wool, hides, and skins; are there any industries in the Union based on those products? Have you any manufactories where you can use up these raw materials locally?—There is the blanket factory at Ceres Road.

3508. To what extent would that consume?—Only a very limited extent.

3509. Other manufactures you have not got?—Not of any account.

3510. In mohair?—No.

3511. Hides and skins?—Yes, very large tanneries.

3512. Are those tanneries equal to supplying the demand of the Union?—I believe they are, but, strange to say, a large quantity of leather is still imported from Australia.

3513. Manufactured leather?—Yes.

3514. To what is that due—that the local article cannot compete against the imported article?—I cannot say. But the fact remains that they can lay down the imported article and pay freight from Australia and still put it down at a cheaper rate than the local people can manufacture.

3515. From whom can we find out the reason why it is so?—Colonel Woodhead can give you all the information.

3516. The tanners themselves?—Yes.

3517. Why is it that the manufactured article can come five or six thousand miles and compete with the local article?—I cannot say.

3518. And there are large importations from Europe as well?—Yes, and also from America, though that has fallen off. We used to get large quantities of sole leather from America.

3519. Have you formed an opinion as regards the quality of the leather which is imported? Are you of opinion that the Australian is better than the South African?—No, I could not tell you that with any degree of certainty.

3520. Or is it that the imports here are more favourable to the exporters from the other side than is the similar case of Australia—that we cannot export to Australia, their tariff being more prohibitive than ours here?—I cannot tell you that.

3521. **(Mr. Bowring.)** Can you tell us where the large tanneries are situated here?—There is Sanderson's of Woodstock. He is, I think, one of the largest tanners. And there is another at Wellington, and we have two very large tanneries in the Mossel Bay District—one of Searle and one of Meyer.

3522. Have you any idea where they get their oils and greases from for tanning purposes?—They import them, I think.

3523. You do not know where from?—No.

3524. **(Mr. Tatlow.)** I see from the official return of exports for the year 1912 that hides and skins show a very large increase over 1911. Sheep skins, 727,000 against 577,000. In the case of ox and cow hides it is nearly double, and these figures are very large compared to any previous year back to 1906. Is there any particular reason why 1912 shows such large increases compared to 1911, or is it only the gradual growth of the business?—I think it is a gradual growth.

3525. We have no figures officially for 1913; but have you any knowledge how 1913 would turn out?—As far as hides are concerned, I think it will turn out well. The price of hides during the past year has been higher than it has ever been before.

3526. Was the price in 1912 much higher than in 1911? Is the increase accounted for by the difference in price to any extent?—Yes, twopence to threepence per pound.

3527. In wool you do not show such large increases? What would account for the difference? Prices were good?—Yes.

3528. Was it a diminished quantity?—I should say so.

3529. That looks as if it is not going on satisfactorily?—No.

3530. **(Mr. Campbell.)** I think you said that the wool grown here was chiefly fine wool; I suppose South Africa depends largely on Australia for stud stock?—Yes.

3531. There has been a considerable import of fine stud sheep from Australia?—I know several rams have come over.

3532. Do you find that the Australian Government places any restriction on the export of these?—I do not think so.

3533. With regard to the South African wool production; I suppose that you find a very great deal of difficulty arises from the fact that the wool being grown on smaller areas than is the case in Australia, there is difficulty on the part of farmers here in classing it properly?—Yes.

3534. Has the Government here never taken any steps to give systematic instruction in wool classing to farmers?—Yes, on several occasions. There was a big wool conference at Port Elizabeth once.

3535. I mean is there no technical instruction given at institutions where the sons of the farmers or the farmers themselves can, by means of practical demonstrations in the wool sheds, learn from expert teachers the knowledge of classing wool?—I believe that can be done at the agricultural colleges.

3536. Has it been done?—Yes, but with very little actual result, except in the Caledon district. The wool is better classified there.

3537. Is that a Government institution—Caledon?—No.

3538. Who carries out the instruction you speak of?—To a certain extent, one of the Government people—McKie. He has been going round the country showing the farmers how the wool should be manipulated and the sorting.

3539. You have no technical school, then, where the wool classifying is taught?—Yes, at the colleges.

3540. Do students who go to the colleges for the purposes of learning the wool business travel round the country and get practical experience in the working of the wool on stations and farms?—I could not say that. I do not think so.

3541. I suppose you know that in Australia, in consequence of technical instruction in wool classing, the quality of the classing has been largely raised, and the value of the clip largely increased?—Yes.

3542. The wool that is shipped from here—is it shipped direct to Bradford or does it go *viâ* Southampton?—Very little goes to Bradford I think, I think the bulk of it goes to Continental places *viâ* Southampton.

3543. Would there be any advantage to send it direct if it were possible to arrange—sending it to Hull, Liverpool, and places which communicate with the wool districts directly. Would there be any saving?—I do not think so. Very little wool is consigned to Liverpool.

3544. You sell to Bradford direct?—Yes.

3545. In shipping wool—do you find you can send as cheaply *viâ* Southampton as Hull?—Yes. There is no opportunity of sending *viâ* Hull. There are not sufficient steamers.

3546. You do not know of any being sent that way? You have not investigated the comparative freights?—No.

3547. Is dipping of sheep extensively practised?—Yes, and there is not nearly as much scab now as formerly.

3548. Is dipping compulsory under Government regulation?—Yes.

3549. How many times a year?—Once.

3550. Have you any regulations concerning the branding of cattle and horses?—I am not sure.

Mr. ALFRED H. OXENHAM, Wool Expert of Messrs. Ebel and Co., Ltd., Wool Merchants, called and examined.

3551. **(Chairman.)** You have heard the evidence of the previous witness—have you anything to add to it?—I am pleased to tell the Commission, in the first place, that this is the first year that the exports of wool from this country have exceeded 500,000 bales. One gentleman of the Commission wished to know why it was that, as far as sorting was concerned, the wool itself fetched such a small price. It is really the fault of the middleman, I may explain. The shopkeeper gives the farmer the same price for his clip whether it is good or bad; therefore, as far as he is concerned, he has no particular interest to improve the quality.

3552. There is no inducement to produce good wool?—No. In certain districts, about eight or nine years ago, we induced the farmers to come together and have sales, as in Caledon. They started the wool sales with about 150 or 200 bales. Last year it was 1,750 bales. There has been a marked increase in the production of wool in that district, and marked benefit to the quality, owing to the buyers from Cape Town going down there and buying for quality and general condition. We are not placed exactly in the same position as in Australia. There, I believe, the bulk of the wool comes into the centre and is put up for sale. It is not so here. The bulk of it is bought in the country here by the storekeepers and they send it to the port and the buyer gets it from him. It is the middleman who secures the wool for the buyer.

3553. The result of that system has diminished the inducement to produce good wool?—Yes.

3554. How could that be altered?—That could be very well altered by having large wool sales in the different centres. Take Worcester, for instance. They could have a sale there which would tap the Fraserburg, Sutherland, and Laingsburg Districts, and get about 1,500 bales. The buyers would proceed from here and buy the wool on the market. The man who had sorted his wool would then get the better price.

3555. Could that not be arranged without the intervention of the Government—by agreement between the buyers and the farmers?—We have tried it, but in only three centres, I think, have we succeeded in getting it done. That is Swellendam, Caledon, and Riversdale.

3556. Wherever it has been established it has succeeded?—Yes.

3557. And where you have not been able to establish that, what opposition has made it impossible?—I think principally it is the system under which the farmer has to buy his goods from the small storekeeper and he pledges his clip in payment for his goods, and is therefore tied.

3558. He is indebted to the storekeeper?—Yes.

3559. Even the storekeeper might prefer to sell by auction or at a large sale than send it here?—Yes, but that would, of course, be of no benefit to the farmer himself. Another question was this—whether it would be better for the farmer to ship his wool direct. Well, the farmer who ships to the London market is at a disadvantage, because the man who buys direct for the manufacturers saves all intermediate expenses, which the farmer, as shipper, has to pay on London sales. So the man who buys direct can afford to pay from ¾*d.* to ½*d* per lb. more for the wool than the farmer can get in London.

3560. **(Mr. Sinclair.)** Does he use the wool that he buys locally—I mean does he use it for manufacture locally?—There is only one manufactory here and that is the blanket factory of Harris Brothers. That takes principally bastard or coarse wool. The market for merino wool is not in this country, and that is the chief kind of wool grown here.

3561. **(Chairman.)** What other points are there?—As far as the mohair industry is concerned Port Elizabeth is the port for it. Cape Town last year only shipped 156 bales, as against 24,703 from Port Elizabeth.

3562. With regard to the establishment of these local sales, has the Government taken any action or has the matter been debated in Parliament?—No, it is simply a matter between the buyers and the farmers themselves.

3563. Are the buyers unanimous in desiring it?—Yes.

3564. How many firms are there interested?—Do you mean in the Union, or only in Cape Town?

3565. In the Union.—I suppose there must be about 40 or 50 firms altogether.

3566. All those would be in favour?—In Port Elizabeth, East London, or Durban the buyers are, because their wool goes direct to the port. You see, 90 per cent. of our wool goes to Germany.

3567. Why there, in preference to other markets?—Well, Germans, I think, prefer our wool to the Australian. The Bradford people only get the inferior or medium quality from here. The Germans take the best wools that are grown in this country, and the best wools come from the Kaffrarian districts and Mossel Bay. That wool fetched last year 12½*d.* per lb., and compares very favourably with some of the wools grown in Australia.

3568. Is there any special technical reason why the South African wools go to Germany in such large proportions?—A lot of South African wools are used for the purpose of making military cloth, and a lot of short wool is used for the fez caps which the Turks wear.

3569. Is the bulk of it made from your wool?—Yes.

3570. What is the characteristic of the South African wool compared with the Australian?—There is only one thing, I think, in favour of our wool, and that is its softer handling. The Australian wool makes a harsher top than the South African variety. Whether the reason is in the climate or not I do not know. It is exactly the same in regard to the ostrich feathers. This is the home of the ostrich, and the same kind of feather will never be produced in Australia.

3571. Do they get harsher feathers too?—They are very much inferior to ours.

3572. **(Sir Rider Haggard.)** You told us that there has been a considerable increase in your output of wool this last year?—Yes.

3573. Do you anticipate that that increase will continue progressively?—Yes, provided that we have good seasons. We have had the drought throughout the country this season, which is bound to affect the wool trade to a great extent. It means diminished quantity. But given ordinary seasons, our wool industry should gradually increase from year to year.

3574. Can you tell us at all to what extent it may increase?—Yes, but it would take a very long time.

3575. It is not from lack of land?—No—from lack of moisture. You see this is a very droughty country, and we have not many irrigation works.

3576. Supposing the irrigation policy of the Government is extended, would that affect the sheep industry?—To a tremendous extent.

3577. By growing lucerne?—Yes.

3578. There is a possibility, therefore, of a very large increase depending upon irrigation activities?—Yes.

3579. You spoke of a system of the storekeepers advancing money to the farmers, and thereby getting hold of the wool. Is that very common?—It is in

the Western Province. I do not know whether it is so much in the Eastern and Natal Districts. I do not think it is.

3580. I suppose I should not be far wrong if I described it as a thoroughly bad system?—Yes, bad for the farmer.

3581. The result of the system is, I presume, that the prime producer must sell his wool to that local storekeeper?—Yes, and must suffer.

3582. He must sell at the price fixed by the storekeeper?—Yes.

3583. Do you see any method by which the evils of that system can be mitigated or abrogated?—No, the only way is for the farmer to get wealthier, so that he does not need the credit.

3584. Would not co-operation be a remedy?—Yes.

3585. And credit banks?—Yes.

3586. Are there any steps being taken to establish the co-operative and credit banks among the farmers?—No.

3587. If such things could be established, would they not be a big factor in increasing the prosperity of the farming industry?—I think so.

3588. **(Mr. Campbell.)** When you speak of central markets for the wool, I presume you contemplate central markets at which the buyers would attend from here?—Yes. You see in this country we have buyers from all over the world. I mean, buyers here do not only buy for Bradford and Germany, but for France, Russia, and America as well.

3589. The local buyers buy for foreign firms?—Yes.

3590. But would not these central sales eventually have the result of attracting the direct representatives of Bradford and German firms to South Africa as buyers?—Yes, there are several of them here now as a matter of fact.

3591. And in that way the local buyer would probably lose some of his business?—Not necessarily. I take it the local buyer's knowledge is better than the imported article.

3592. But has not the result in Australia been to induce the firms to send out direct buyers who deal directly at the wool sales with the selling auctioneers?—Yes, but when you remember that Australia exports 2,000,000 bales against our 500,000, it makes some difference.

3593. But you are optimistic that the South African wool will some day successfully compete with that of Australia?—I should like to see it. I have been thirty-one years in this trade, however, and it has not come along yet.

3594. South Africa is a fair producer of fine wool. The class of wool that is very largely needed in Bradford is sold to Germany?—Yes.

3595. Do not you think the buyers would come here direct and deal straight with the wool producer through the auctioneer?—Yes.

3896. I suppose the result would possibly be that there would be an increased profit for the farmer? He would get a better price?—Yes, the more competitors the higher the price.

3597. Speaking now about the classing of the wools, you would support what Mr. van Breda said with regard to the need for better classing of the clips here on the farms and stations?—Yes. We have a Government expert here. The Government has gone to a lot of trouble to get experts from Australia and the old country, and sent them out to various districts, and the farmers have done it for one or two years, and they have then declared that it did not pay them. You can quite understand that if I am sending my wool classed and others are not, and I get the same price as they do, I am not going to do it. That is the fault of the wool being bought by the storekeeper.

3598. Does not the remedy lie rather in getting the young people in the technical schools and giving them instruction in wool classing?—Yes, that is what we are now doing in the colleges at Middelburg and Elsenburg.

3599. Are those colleges largely made use of?—Yes.

3600. And they are, generally speaking, successful, so far as the dealing with wool is concerned?—Yes.

3601. What would be the date of the wool sales here? Supposing these central sales were instituted, in what month of the year would they be held?—Our principal month for wool sales is October.

3602. You would get ahead of the Australian sales, and it would be a well-timed trip for wool buyers to go right round?—Yes.

3603. **(Mr. Garnett.)** You spoke about the great increase in wool. Is that increase due partly to numbers and partly to improvement in the weight of the fleeces?—Both.

3604. Could you say how much the weight of the fleece has increased in the last twenty years?—Well, ten years ago our sheep averaged, I think, 3½ lbs. weight of wool. And now they have gone up to 8 or 9 lbs. That is the improved breed.

3605. Your improvement in the weight of the fleece has kept pace with the improvement in other parts of the world?—Yes.

3606. You say nearly all your wool goes to Germany?—Yes.

3607. Bradford and the West Riding are perhaps the greatest consumers of wool in the whole world?—Yes.

3608. And they are on the look out for wool?—Yes.

3609. Would I be right, therefore, in drawing the conclusion that the style of wool you produce is not particularly suitable for use in the Bradford market?—Yes. I would say that would be a very fair conclusion to arrive at. As I said before, the best of our wool goes to Germany.

3610. But you would not impute it to neglect on the part of Bradford buyers altogether. You know they take what suits them best?—Yes, I suppose that would be so. But I see no earthly reason why Germany can use the wool and Bradford not.

3611. Of course, there is a difference in the fabrics, and a difference in the machinery?—Yes.

3612. **(Mr. Sinclair.)** Has the existence of the duty anything to do with the finer qualities of the wool growing?—No. To the best of my knowledge there is no duty in Germany on wool.

3613. Only the lighter wools went to the United States when there was duty?—Yes.

3614. I do not follow you in regard to the price that you thought the local buyers could give for the wool. I understood you to suggest that they could afford to give higher prices than would be obtained for the wool if the farmer shipped to London himself?—Yes.

3615. Would you mind developing that a little?—It would save all commissions, warehouse charges. In the first place, the broker on the other side charges 1 per cent. You have a slight expense also in other ways—that expense he would save.

3616. But is the wool you buy locally intended for local use?—No, for shipment.

3617. Have not those charges to be borne anyhow?—No, they are saved. No middleman comes between. It goes direct to the manufacturer.

3618. Is that wool bought locally, then, for speculation?—No. You are on the other side of the water. Take tops, 2*s*. 8½*d*. I have to guarantee to deliver those at that price. It does not matter to you what it costs on this side.

3619. If there is a difference, the local middleman gets it and not the grower?—Yes. But we were speaking of farmers shipping direct to the London sales.

3620. But in the absence of the sales that have been spoken of, the grower must either take the price that is offered by the storekeeper or take the risk of shipment with the knowledge that shipping small quantities is to his disadvantage?—Or he can forward it to the seaport towns, where it would meet with genuine competition.

3621. They have sales at the seaport towns?—Yes, every week.

3622. **(Sir Jan Langerman.)** Supposing that on the London market Australian and South African wool of equal value are placed, is there not a tendency in the market there to give a lower price for our wool simply because it is South African?—So we have heard. But I think it is all a question of yield. Australian wool is a better yielder than ours. Of course, there are some Australian wools which yield equally as bad as ours.

3623. There is an unexplained prejudice against our wool?—Yes.

3624. That can only be met by proper classing?—Yes.

3625. You may have heard of a case where South African wool was withdrawn from the London market and sold as Australian wool and fetched a higher price?—I have heard of such cases, but I do not place much confidence in that. I have heard three years ago that some man here sent his wool to Australia and it was sold in England as Australian wool.

3626. I know it was true in the Transvaal. How would you recommend that this prejudice be overcome?—Getting the wool up better. But we have small farms here as compared with Australia, and it does not pay a man to turn eight or nine bales into four or five different sorts of wool.

3627. Is it your opinion that South Africa can grow equally as good wool as Australia?—No.

3628. Whatever they may do in selection and in better classing?—Well, they may ultimately, but I do not think I shall ever live to see it.

3629. Why is it—is it climatic conditions?—Yes, and the general get-up of the wool itself. Our farmers do not take the trouble.

3630. That is not the point. The quality of the wool itself—and not the classification. Do you think we can produce as good a quality of wool as Australia?—Yes, but I do not think you will produce as good a length of wool as they do. I think the climatic conditions are against you, because any farmer will tell you that in this country, after the sheep has been shorn for a certain time, the wool commences to fall off, and that it starts falling off before it has attained the length of the Australian clip.

3631. That is why you always import new rams to keep up the length of the staple?—Yes.

3632. **(Mr. Tatlow.)** This system of the small woolgrower having to dispose of his wool to the shopkeeper—does it largely prevail?—Well, largely in the Western Province.

3633. What sort of shopkeepers are they—I mean what are the goods they deal in?—General merchandise—groceries and so on.

3634. All that the ordinary man and his household requires?—Yes.

3635. Does it mean that the man is usually in debt to the shopkeeper? Is he obliged to sell in order to liquidate his debts?—No, I would not say usually, but it is the custom or habit.

3636. It might be broken though without any great difficulty?—Yes.

3637. Are there no agricultural societies or farmers' associations that can come to the rescue of the farmer by co-operation?—Well, we have our agricultural societies, but they do very little in that direction.

3638. There are other countries where the farmer has liberated himself from the influence of the shopkeeper in that way—by spontaneous effort and in establishing such associations?—Yes.

3639. Have you any hope of that here?—No. I cannot say we have.

3640. Is it a thing that presses very heavily upon the grower of the wool? Does he sell at an unduly low price?—He does not seem to mind.

3641. Regarding the export of wool to Germany: I think you said the bulk of the wool goes there?—90 per cent.

3642. That is scarcely borne out by the figures for 1911: It shows about half and half to the United Kingdom and Germany?—Well, the wool goes to the Port of London, and the London statistics take it that this wool is for England. That is not so—it is in transit.

3643. Then the English figures include sales to Germany?—Yes.

3644. Are you sure of your statement?—Yes.

3645. These figures certainly require some explanation?—Yes.

3646. Because the actual figures for 1911 are:—United Kingdom, 130,000; Germany, 146,000.

3647. **(Mr. Garnett.)** Can you give us the highest price that has been realised for any lot of wool during this last season?—One lot I bought in Caledon at 12½*d.*—that was the highest. In Mossel Bay it was 12⅝, and at East London 12½ was the top.

3648. That is the highest class?—Yes.

3649. Scoured?—That has gone up to 2*s.* 0¼*d.* (since 2*s.* 1*d.*).

3650. That is the highest price for scoured?—Yes.

3651. **(Sir Alfred Bateman.)** What was the price in London? How would it compare with the other figure?—I suppose 12½ would mean 13½ or 14 in London.

3652. As compared with wool from Australia at the same time. At that time was wool dear or cheap?—It was dear.

3653. So that really does not represent a very high price?—We reckon it is high. We reckon wool is dear to the buyer.

3654. You cannot quote the price at the same time? There is no standard?—No.

3655. Do these storekeepers supply alcoholic drinks, too?—I do not think so. No, they are outlying stations.

3656. They are small people?—Yes.

3657. Not branches of large stores as in Australia?—No. Nor like Mosenthal's in the Eastern Province. They are chiefly Jewish storekeepers; they own most of the shops.

3658. The farmers have to deal with them really?—The distances are so great and it is the most convenient way, I suppose.

3659. Would not land banks advance the money?—There is one—the Government Land Bank, but I do not think the small farmer can go to them.

3660. Are the farmers tempted to begin an account with these storekeepers for the year with credits and debits—getting all their stores for the year, and then the wool goes as the credit?—No, I think it is a case of necessity. The storekeeper happens to be the nearest man.

3661. The farmers are not making so much money that they can afford to act independently?—No.

3662. The farmer is a small man here?—Yes.

Cape Town, Monday, 2nd March 1914.

Professor H. H. W. Pearson, M.A., Sc.D. (South African College, and Honorary Director of the National Botanic Gardens, Kirstenbosch), called and examined.

3663. **(Sir Alfred Bateman.)** You are "Harry Bolus" Professor of Botany at the South African College and Honorary Director of the experimental botanical station at Kirstenbosch?—Yes.

3664. And you have prepared and sent in to the Commission a memorandum on the subject of medicinal plants and drugs, &c. Will you please go through it and give us the chief points?

The following is the memorandum submitted by the witness:—

At the request of the South African Officer of the Dominions Royal Commission, I propose to give evidence on the subject of the experimental cultivation in South Africa of certain economic plants, especially those yielding drugs, perfumes, and dyes. I also add notes on the cultivation and improvement of South African garden plants and on the functions of the recently-established National Botanic Gardens.

At the outset I wish to make it clear that I am treating the subject from the botanical and horticultural standpoint only. I possess no special knowledge of drugs, perfumes, or dyes as such. Information has already been furnished to the Commission by experts in the production and use of these products, viz., Messrs. J. C. Umney, J. H. E. Evans, K. C. Allen, E. M. Holmes, E. V. Barrett, and Professor Greenish. I have read the evidence given by these gentlemen, and have considered the possibility of establishing in remunerative cultivation here the economic plants mentioned by them as worthy of attention in the Colonies. I have also referred to some others which have not previously been mentioned in evidence.

All the plants named in the lists given below, or in a few cases native species which may prove to be adequate substitutes for them, will as soon as possible be under experimental study in the National Botanic Gardens at Kirstenbosch. A few are there now, others are expected immediately, the remainder will be obtained as opportunity offers.

The climatic conditions of Kirstenbosch are, in essentials, those of the coast belt lying between Port Elizabeth and the mouth of the Oliphants river. They reappear on the extensive range of the Kamiesberg (mostly a native reserve), in Little Namaqualand, and in some other localities. It is this region which I have kept particularly in mind in considering the question of cultivation of exotic economic plants.

The conditions of plant life in the great inland plateau are different in many important respects from those prevailing here. The south-west coast belt, as defined above, offers the most promising field in South Africa for the economic cultivation of the plants yielding the drugs and perfumes which have been particularly instanced by previous witnesses. Among the native plants of possible economic value a large proportion are more likely to succeed in the conditions of the plateau than in those of the coast belt.

It will be convenient to consider the subject in four divisions, viz.:—

(1) Plants of exotic origin yielding drugs, perfumes, dyes, &c.
(2) Plants of native origin yielding drugs, perfumes, dyes, &c.
(3) South African garden plants.
(4) Economic functions of the National Botanic Gardens.

I.—*Plants of Exotic Origin yielding Drugs, Perfumes, Dyes, &c.*

It is a well-known fact that a considerable number, probably the majority, of these plants are either native of the countries bordering the Mediterranean or have been in cultivation there, mostly for very long periods.

The south-west coast belt of South Africa enjoys a climate which in its main characteristics resembles that of the Mediterranean, *i.e.*, the rainfall occurs mostly during the winter months, and the mean, maximum, and minimum temperatures have similar ranges in different parts of the two regions. Since these two climatic factors have a profound influence upon vegetation, the plants of the one region may be transferred to the other with a considerable probability of success. Economic plants established in the Mediterranean region are therefore eminently suitable for experimental cultivation in the south-western coast belt of South Africa. The truth of this hypothesis is sufficiently supported by the success which has attended the introduction of the grape, the citrus fruits, the olive, and the mulberry into South Africa.

The native vegetation of this south-west coast belt, in common with that of some other parts of South Africa, resembles that of the Mediterranean in two characters, which are of great importance in connection with many of the plants now under consideration. These are the abundant production of flowers and of essential oils. We have, therefore, reason to expect that economic plants whose value depends upon their yield of flowers, fruits, seeds, or essential oils, if they can adapt themselves to South African conditions, will give a large return.

The following list of exotic economic plants recommended as suitable for trial here makes no pretence to be complete. It is based mainly upon the information furnished by previous witnesses. It indicates the nature of the experimental work already commenced or in immediate prospect in the National Botanic Gardens.

List of Plants, yielding Drugs, Perfumes, Dyes, &c., suitable for Experimental Cultivation in the National Botanic Gardens.

(The extended cultivation in the Colonies of those marked with * has been recommended by previous witnesses.)

Name.	Use.	Origin.
*Convolvulus scammonia (scammony)	Drug	Levant.
*Urginea maritima (squills)	,,	Mediterranean.
*Astragalus spp. (Tragacanth)	Gum	Levant.
*Chrysanthemum coccineum	Insect powders	Levant.
*Chrysanthemum cinerarifolium	Insect powders	Caucasus.
Coriandrum sativum (coriander)	Drug and condiment	Mediterranean.
*Iris germanica, florida (orris root)	Perfume	North Italy.
*Papaver somniferum (opium)	Drug	Levant, Turkey.
*Olea Europea	Oil	Mediterranean.
*Foeniculum vulgare (fennel)	Drug	,,
*Quillaja saponaria	Drug, soap, &c.	Chili, Peru.
Lavandula vera (lavender)	Perfume	Mediterranean.
*Artemisia maritima (santonin)	Drug	,,
*Hydrastis canadensis	,,	North America.
*Ipomoea purga (jalap)	,,	Mexico.
*Laurus sassafras (sassafras)	Drug, flavour, perfume†	Florida (northwards).
*‡Polygala senega (senega root)	Drug	United States of America.

† "Might have large industrial uses if produced cheaply" (H. E. Evans). *See* note on native plants.
‡ *See* note on native plants.

Name.	Use.	Origin.
(1)*Hæmatoxylon campechianum (hæmotoxylon)	Dye	Central America.
*Carum carui	Spice, drug	Europe and Asia—Cult. Holland.
(2) Madia sativa	Oil	California.
*Krameria triandra (rhutany root)	Astringent	Peru.
*Cascara sagrada	Drug	California.
Capparis spinosa	Condiment	Mediterranean.
Glycyrrhiza glabra (liquorice)	Flavour, tobacco manufacturing.	,,
(1)*Prunus Amygdalus (almond)		Persia, North Africa.
1. var. Amara	Oil, drug	Mediterranean.
2. var. Dulcis	Flavour	,,
*Alkanna tinctoria	Dye	Levant.
*Rosa damascena (attar of roses)	Perfume	Bulgaria.
(3)*Citrus bergamia (bergamot)	Essential oil	Calabria.
*C. vulgaris, risso (bitter orange), oil of Neroli	Perfume, flavour	Mediterranean.
*C. limonum, risso, oil of lemon		,,
*C. vulgaris, risso (sweet orange), oil of orange	Essence de Portugal	,,
*Rosmarinus officinalis (rosemary)	Perfume, drug	,,
Pistacia lentiscus	Resin (mastic)	,,
(4) Rhus coriaria (sumach)	Tanning, dyeing	,,
*Aloe Perryi (socotrine aloes)	Socotrine aloes	Socotra.
(5)*Styrax officinale	Incense	Levant.
*Liquidambar orientalis	Chiefly perfumery	S.W. Asia Minor (India, China, principal markets).
*Hyoscymus niger (henbane)	Drug	Mediterranean.

(1) "Thrives where the olive grows" (Haldane).
(2) Recommended by Haldane for cultivation at the Cape.
(3) "There will be a fortune for anyone who is successful in producing it for use in the Colonies" (E. V. Barrett, p. 25).
(4) *See* note on native plants under Rhus.
(5) Now disappeared from commerce owing to destruction of trees, which, by continued topping, have been reduced to small bushes (Fluckiger, Kew).

II.—*Native Plants yielding Drugs and Perfumes, Dyes, &c.*

A great many native plants are reputed to be of medicinal value. As stated above, the number of plants producing essential oils is remarkable. Andrew Smith in "A Contribution to South African Materia Medica" (published 1888), gives a list of about 200 species which are used by natives and others for medicinal purposes. A number of these are undoubtedly of negligible value; others which possess valuable properties are doubtless omitted from Smith's list. But there are very many which are worthy of careful study. Both their behaviour under cultivation and the nature and action of their products call for investigation.

A few of these plants are already well known, *e.g.*:—

(i) Buchu.—Three species have been in commerce for a long period, viz., *Barosma betulina, B. serratifolia, B. crenulata.* Of these, only one, *B. betulina*, is now in the Pharmacopœia. The market is supplied mainly from wild plants, which are said to be much rarer than formerly, many having been destroyed by collectors as well as by veld fires. Owing to these causes the price has greatly increased.† I am informed (Messrs. Evans, Sons, Lescher and Webb) that the supply in the London market is sufficient in quantity and quality. In America, however, the demand is not satisfied, and there are complaints as to quality. There is, therefore, good reason for getting the plant into cultivation. Experiments conducted by the Forest Department in the Cedarberg Mountains have not yet proved successful. The export in 1912 was 223,021 lbs. of dried leaves, valued at 38,264*l.*

(ii) Berry wax (*Myrica cordifolia*). — Vegetable "wax," resembling in its properties the product of the candleberry myrtle of the U.S.A. Mixed with tallow it makes good candles. Also used locally in soap-making and manufacture of polishes. Some of the South African species grow commonly in loose sand near the sea. Worth investigation.

(iii) *Monsenia ovata.*—Astringent, specific for dysentery. Enquiries for this frequently received from the U.S.A.

In addition there are many plants less well known, which should be investigated. These include:—

(i) Hæmatoxylon (Logwood).—At present the whole supply is yielded by a single species (*Hæmatoxylon campechianum*), a native of Central America, introduced to Jamaica in 1715, and now naturalised there; used by dyers and printers, yielding only the best deep red and black dyes. Also medicinally in use as a mild astringent. Mr. Evans stated in evidence before the Commission (Minutes, p. 315): "At present our supplies come from restricted "areas, and there is a possibility of the tree "being stamped out. It would take many "years to replace."

Hitherto the species named above was the only one of the genus known to exist. A second species is now known to occur in South Africa. This is a bush, growing in very dry places. Its wood yields a dye, which is now being investigated by an expert in England, whose report has not yet been received. Should this be satisfactory, and if the plant responds to cultivation, it may very well give rise to the establishment here of an industry of some importance.

(ii) Rhus.—Various species. *R. lucida, R. tomentora*, and other species locally used for tanning, (*cf.* Mediterranean sumach (*R. coriaria*)).

(iii) *Leonotis Leonurus* and *L. ovata.*—Wild dagga. Reputed to be a remedy for snake-bite.

(iv) *Acocanthera venenata.*—Yields "Brucine," a drug resembling strychnine in many of its properties.

It is hoped shortly to have a large number of these plants, and many others yielding drugs, resins,

† A royalty of 3*s.* per lb. of dried leaves, of *Barosma betulina*, is charged to collectors on Crown lands. (E. V. Holmes, p. 20.)

caoutchous, fibres, dyes, and perfumes, established at Kirstenbosch. In the case of those which yield drugs, their experimental cultivation must be supplemented by pharmacological investigation. This will be rendered possible by the appointment of a pharmacologist on the staff of the local medical school.

III.—*Native Flowering Plants.*

The South African flora, particularly that of the western province, is notable throughout the civilised world for the large proportion of ornamental species which it contains. In the early part of last century these were in great demand in Europe, and a considerable number have since been established as common greenhouse plants. But most of the handsomest of the Cape species are still unknown in cultivation.

The local demand for cut flowers is very large, and has hitherto been very incompletely satisfied by the promiscuous gathering of wild flowers—which has become so extensive that the existence of many of the more attractive species is endangered. There is in South Africa, at present, very little attempt to cultivate the native ornamental plants except in the form in which they have been re-introduced from European nurseries.

There can be no doubt that the application of refined methods of horticulture to the native species in the country of their origin will lead to the rapid improvement of many of the established garden plants, and to the introduction of a great many which are so far known only in the wild state.

IV.—*The Functions of the National Botanic Gardens.*

The recently established National Botanic Gardens have for their main object the experimental study of the native vegetation, including their economic possibilities. Also they will deal with the acclimatisation of a number of exotic economic plants, whose behaviour under South African conditions has not yet been investigated. When properly equipped, they will perform an economic function which has hitherto received comparatively little attention in South Africa. The acclimatisation of exotic plants has been carried on by both the Agricultural and the Forestry Departments as well as by private individuals. Their legitimate efforts in this direction have, however, left a great deal which can only be done effectively by the organisation of a botanic garden. In the circumstances of South Africa the economic investigation of the native flora is certainly of at least equal importance with the acclimatisation of exotic plants. To this practically no attention has yet been given.

The National Botanic Garden was established eight months ago; its objects were numerous. One of the most important of these was the economic work under two heads, namely, the study of South African economic plants which have been very little attended to, and secondly, the investigation of a number of exotic economic plants which have not been seriously tried, most of them not tried at all, in South Africa. I therefore went carefully through the list of plants given you by your first witnesses on drugs and perfumes. I took from this a number of plants, most of which are cultivated in the Mediterranean region, and some in California and in other places in which the climatic conditions are very similar to those which we have here, and I have no doubt that these plants can be established here. I can give you no results at this stage, but I can give you an outline of the experiments which are now being commenced at Kirstenbosch. In the course of the evidence one or two members of the Commission asked the question in regard to the object of botanic gardens, and I added a very brief note on the functions of the South African Botanic Garden.

3665. **(Sir Alfred Bateman.)** Were you ever connected with Kew?—Yes, I was on the staff for four years.

3666. By the way, I see Buchu leaves is a considerable item on this list?—Yes, the purpose of these is medicinal. I am afraid I have not sufficient medical knowledge to say exactly what they are good for. But I believe they are principally used as a diuretic, diaphoretic, and stomachic. They are very much in demand in foreign countries as a medicine. So far as I can tell from my correspondence the demand for this substance is growing very rapidly in North America. The London market is said to be sufficiently stocked, but we are constantly receiving inquiries from America.

3667. Are you in touch with Kew Gardens?—Yes.

3668. Do you ever want the help of the Imperial Institute in London?—I can do very little with these plants here except cultivate them and study their yield. The next step will be to get the assistance of the Imperial Institute to carry on their further examination.

3669. That is quite a new work?—Yes.

3670. **(Mr. Lorimer.)** You have read the evidence given in London as to the desirability of increasing the supply of medicinal plants?—Yes.

3671. Are you making any experiments to test these plants as regards suitability, so far as they are not indigenous to South Africa?—Yes.

3672. Who pays the expense? Do you get a Treasury grant?—Yes. We are just beginning our second year. Our Government grant at present is only 1,000*l.* a year. I can make it up to 2,000*l.* from other sources. But increased grants will be necessary in the near future.

3673. Supposing you could cultivate these plants here, what would you do?—When I get them established and I can show that I can get a sufficient yield and sufficiently good quality I shall take steps to get them taken up privately or hand them over to the experimental farms in the Agricultural Department.

3674. Suppose you found you could cultivate them to good purpose, I suppose you would have no difficulty about labour?—That is one point on which I am not quite sure. I am certain that in some parts of the country there would be no difficulty, but other parts I do not know so well. I have attempted to get information from people who do know and it is rather contradictory.

3675. Much of the labour, I suppose, will be coloured?—All my labour at the Botanical Gardens is coloured.

3676. Supposing you were establishing these cultivations on farms coloured labour would be available, I suppose?—Yes.

3677. There is no limitation to the amount of coloured labour which is available for such purposes, is there?—In some parts of the country there is undoubtedly a limited supply, but in other districts, where the climate is similar to that of Kirstenbosch, there is, as a rule, sufficient labour, I think.

3678. This cultivation could be largely undertaken by women and children, I suppose?—Yes.

3679. And you would probably get sufficient numbers of these?—Yes.

3680. Because we found in Australia, where the climate and soil were both very suitable for the cultivation of many of these plants, the labour was unattainable. It would be too costly, but here, I understand, it would be quite different?—Yes.

3681. I have no doubt that your department would let the London people who require these things know that they were available here?—Yes.

3682. Do you expect to give them definite information on the point before long?—Yes.

Cape Town, Tuesday, 3rd March 1914.

Mr. ALWYN IGNATIUS VINTCENT, J.P., M.L.A., representing the Mossel Bay Chamber of Commerce, called and examined.

(*For the evidence of this witness on "Freights," see p.* 59.)

3683. **(Chairman.)** You represent the Chamber of Commerce at Mossel Bay?—Yes.

3684. The subject on which you are to give evidence, I believe, is the ostrich feather industry?—Yes. The feather industry in the south-western districts is a most important one, and I think the value of feathers shipped through Mossel Bay last year was very nearly 1¼ millions, and the total exports of feathers from South Africa was very nearly 3 millions. At present, unfortunately, the market is very depressed, and I think values to-day, in comparison with what obtained about a year ago, show a reduction of an average of 40 per cent.

3685. Can you give the quotations last year and now?—I have not got those with me. I have no doubt that that information could be obtained from some of the feather buyers here. Personally, I do not buy feathers.

3686. What has been the recent development of the ostrich feather industry?—The quantity is increasing during the last few years throughout South Africa, and a good many irrigation schemes have been undertaken, and, wherever the farmers can go in for it, and wherever the soil was suitable, they grew lucerne and ran ostriches. It has been a very profitable method of farming in the past, and the industry has done a great deal for the development of the country. It has brought in capital. Nothing has contributed towards the development of the country more than the ostrich feather industry. It has sent up the value of land, on the other hand, in some cases to a fictitious figure. Undoubtedly one of the results of this checking of the enterprise will be a considerable reduction in the value of land.

3687. Do you foresee a large extension of the production of feathers in South Africa?—Of course, it all depends on the future prices of feathers. I do not think the increased quantity of birds is so much a factor in the recent slump as the change in fashion. The prime feathers are not worn now as much as formerly, and some of the cheaper stuff has improved in value while there has been a drop in the better class of feather

3688 Is there not a large increase of land devoted to ostrich feather farming, and is the slump not due to that?—The area is being increased by irrigation in the south-western districts, where you have rich alluvial land. The values of land have gone as high as 200*l.* an acre. Of course, at those prices, farming could only be remunerative as long as the feathers maintained a fair value, but if a man had a farm to-day on land for which he paid 100*l.* a morgen, at present prices it would not be a paying proposition. The profitable nature of the farming has induced the farmers to give their whole attention to ostriches. They have put all their eggs into one basket, so to speak, and I think if there were a permanent slump, the farmers would devote attention to other systems of farming, and the lucerne land would do for dairy farming and the fattening of cattle, &c.

3689. The land which fetches such high prices for ostrich-farming has peculiar characteristics?—Yes; it is a great depth, and, in a district like Oudtshoorn, if they irrigate the land three times a year, they find it suffices.

3690. Does the depth of the soil affect the quality of the feather?—No; the depth of soil retains the moisture, and lucerne grows much better. In the case of winter feed they give harder food, such as maize.

3691. If you have poor land—or rather less good land—irrigated, is that better than good land not irrigated?—Yes.

3692. With regard to irrigation and the extension of it, as applied to ostrich-farming, is there a great future for it?—I think so. Hitherto, of course, in the south-western districts most of the schemes have been private schemes undertaken privately by farmers. In the Oudtshoorn District a considerable scheme is being undertaken by an irrigation board. Farmers combine and borrow money from the Government at 3¾ per cent., and then they pay interest plus sinking fund, and it is redeemed in thirty to forty years, so the farmer contributes to the cost of the supply of water in proportion to the area irrigated.

3693. Do these schemes work well?—Yes. They form a board and pay towards the interest and sinking fund.

3694. Supposing that an adequate market and adequate prices existed, there is no reason why the ostrich-farming industry should not extend very rapidly and largely?—It is extending throughout the Union at the present time. There was a time when the Cape ostriches had practically a monopoly, but now Natal is running birds with success, and I understand the Transvaal and the Free State also.

3695. What constitutes the advantage of South Africa in regard to ostriches compared with other countries?—Well, South Africa was the home of the bird, and we have a law prohibiting the export of ostriches.

3696. Do other countries compete at all with you?—Not materially. Egypt ships feathers, but they are of poor quality, and I think in California they have some birds, but not on a very large scale.

3697. What is the price of birds?—They vary. You can get some rubbish for 2*l.* or 3*l.* The price of the birds naturally fluctuates with the price of the feathers.

3698. The best birds are worth what?—I have not heard of recent sales, but there was a time when they paid as much as 500*l.* for a pair of breeding ostriches. You can obtain very good birds now for 100*l.* the pair. Even in the last few years farmers who had good breeding birds sold their chicks at 5*l.* a week old.

3699. **(Mr. Campbell.)** There has been a considerable decline in the market value of feathers during the last two or three years?—Yes: this last year very considerably. Up to this last year the farmers were getting very remunerative prices. As regards the price to-day, compared to a year ago, I am informed by those in the business that it amounts to an average decline of 40 per cent. In other words, supposing that a year ago the value of feathers exported was, say, 2½ millions, it would mean a decline of 1 million on to-day's prices.

3700. Is that decline due to fashion or to the increasing supply of feathers?—I think more to the change in fashion than to the increasing quantity.

3701. Do you think the increase in the production of South Africa has had a serious effect on the market?—I do not think the increase has been very serious but I think it is due more to the change in fashion.

3702. Is there any prospect that there will be serious over-production if the industry is extended in this country?—Of course, if feathers are not fashionable then, naturally, the increase in quantity would tend to further depress the market. That, of course, applies to all articles of commerce.

3703. Looking at it from that point of view—supply and demand—is there room for a very great extension of the industry?—I do not think so. I do not think it would be wise for farmers to rely too much on ostrich feathers. I think the time has arrived when the farmers should seriously consider the question of

going in for mixed farming instead of depending on ostriches entirely.

3704. Is ostrich-farming mixed with other classes of agriculture?—Yes, in some cases. Of course, in Oudtshoorn the land is so dear and so high in value, and most of the land is situated in valleys which are narrow, and wherever they have been able to irrigate no other class of farming has really paid.

3705. What would be the price of land in Oudtshoorn that is used for ostrich-farming—100*l.* an acre?—Well, I should say within the last few years the average value of good irrigable land sold there has been 250*l.* a morgen—that is a little over two acres. And some pieces—more particularly small lots contiguous to large holders and wealthy men—have been sold at prices as high as 500*l.* a morgen. You see you have some wealthy farmers there who show a big surplus every year, and their hobby is the acquisition of land, and they have been known to pay occasionally as much as 500*l.* a morgen for a bit of land adjoining their own which they were determined to have.

3706. What number of ostriches would be kept on land of that value?—I think they estimate about six ostriches to a morgen.

3707. And the birds return now about 3*l.* a plucking, do they not?—I suppose at the present time that would be about the average, say, about 4*l.* 10*s.* a year, because they pluck every eight months.

3708. Are the feathers all prepared here before sending away, or are they shipped in a raw condition?—They are simply bundled together and not dressed.

3709. Is there any possibility of acclimatising an industry for the dressing of ostrich feathers?—I do not think there is any idea of doing so. I believe in America, for instance, where a lot of the feathers go, there is a higher duty on dressed feathers than on undressed, so you would be penalised in the market.

3710. Is the industry one that is subject to serious changes in fashion?—Yes. The feather has been in fashion now for a good many years, but it is an article on which the price has fluctuated a good deal.

3711. Ladies do not regard ostrich feathers as they do diamonds—a joy for ever?—Well, you see, diamonds last longer. Feathers wear out, and that is a good thing for the feather-grower.

3712. **(Mr. Sinclair.)** I suppose that the margin of profit which the farmer has been getting during recent years has been so large that there has been room for a considerable fall in price and yet to leave him a fair result?—Yes; twenty years ago the prices were also very low, but land was cheap.

3713. I suppose the profitable nature of ostrich-farming has had some effect on the price of land, like the dairying industry in other countries?—Yes.

3714. And as the value of feathers comes to be permanently reduced, so land will undergo a depression in value?—Yes.

3715. Unless the land is of sufficient richness to produce other equally profitable crops?—Yes.

3716. And I take it that land used in ostrich-farming is capable of producing anything?—Yes. I have heard from practical farmers whose opinions are of value that unless there is a very serious slump, affecting the stability of the country generally, that irrigable land in Oudtshoorn will never go below 200*l.* a morgen.

3717. It is intrinsically valuable and productive?—Yes.

3718. I suppose that there is little doubt that the farmer himself will change his crops as he finds there is a demand?—Yes.

3719. Do I understand from you that it is your opinion that other countries where ostrich-farming can be carried on would not be able to produce as good a feather as is produced here, by reason of the fact that those comtries are not the home of the ostrich?—I do not see why they should not produce a good feather in Australia.

3720. We had an opinion the other day from a witness that, even given your bird in Australia, he did not think that the same feather could be looked for?—I am not sufficiently expert, I am afraid, to express an opinion on that. I do not know Australia at all or the conditions there. My opinion on that question would not be a very valuable one, I am afraid.

3721. **(Sir Jan Langerman.)** You spoke of mixed farming. Taking the average value of land, you think it is about 100*l.* an acre?—Yes.

3722. In Oudtshoorn particularly, supposing they went in for mixed farming, what other class of farming could they carry on with land at 100*l.* an acre?—Suppose they grew lucerne, I am told that if they could get 2*l.* 10*s.* a ton it would pay them well.

3723. Do you mean for export?—Yes, and for use in the country.

3724. And what about tobacco?—That is a valuable crop, of course, provided they grow the right quality, it pays very well.

3725. And Oudtshoorn is also good for fruit?—Yes, but since they have applied themselves almost exclusively to ostrich-farming they have neglected the small details, such as dairying and fruit.

3726. So the average value of land, 100*l.* an acre, where there are ostriches and lucerne, you would not consider too high?—I would not consider it to be a dangerous level.

3727. **(Mr. Tatlow.)** How long have you been interested in ostrich-farming?—I am not directly interested personally.

3728. You have taken an interest in the industry?—Yes. I have been in business myself for thirty years in Mossel Bay. Of course, thirty years ago the value of exports was much smaller.

3729. In that period of time have you ever known ostrich feathers to go out of fashion?—They have never been unsaleable.

3730. Has there ever been a serious slump owing to change of fashion?—Yes, twenty years ago they were quite as low as they are to-day, and then at the lower prices the farmers made money.

3731. At present prices ostrich-farming is profitable?—Yes.

3732. You said about four years ago the price was considerably higher?—Up to July last year prices were good, and then the market sagged. I take it you have the statistics of shipments during 1913?

3733. No, not yet.—Take 1913. Very heavy losses must have been sustained by shippers on parcels from September onwards for the December and February sales.

3734. Is there a greater demand for the inferior feathers than formerly?—Yes. Recently, the commoner stuff in proportion has sold very much better than the primes.

3735. Because the lower classes are dressing better?—Yes, one has to remember that.

3736. You are rather looking towards that as a permanent demand, I suppose?—Yes, I do not think it will ever go entirely out of fashion. You see a great number of people are employed and interested in the industry in Europe and elsewhere, and a lot of money is invested in it, and these classes are not going to let the thing lapse.

3737. On this good land how many crops of lucerne can be grown?—About five a year.

3738. **(Sir Alfred Bateman.)** I suppose at Port Elizabeth we shall get returns of prices?—Yes, you have some large dealers there. At Mossel Bay there are very few dealers.

3739. The sales are mostly made in the ostrich feather market at Port Elizabeth, are they not?—Yes. At Oudtshoorn they have no public market. They have private buyers there who visit the farms or get the farmer to bring in his plucking and invite tenders for the feathers.

3740. At Port Elizabeth they have sales almost every day?—I think, weekly.

3741. And the feathers are sorted there?—Yes.

3742. But not dressed?—No.

3743. I think that you told us that the United States tariff gave considerable advantage to the undressed feather?—Yes.

3744. And I think it is the same in other countries—notably in Germany?—Yes.

3745. Can you tell us whether you consider the soil or climate here has any effect on the feathers as well

as the lucerne. Has it an effect on the ostrich?—I think the ostrich likes a dry heat, and that is what he gets on the Karroo.

3746. What you say gives us the idea that for the future the market will be larger for the rather inferior feather—there will be more market among the working classes?—Well, if the upper classes resume wearing the plumes it will naturally affect the price.

3747. Is there much demand from the coloured classes in this country for the decoration of themselves and their women?—Not to a large extent. As you will see, if you walk about Capetown, many of the coloured women wear feathers. It does not affect the market much. Natives, of course, do not wear them, but the Cape coloured people do. The coloured classes here get good wages—practically the same as your white people in England, and they devote a large percentage of their wages to dress.

Cape Town, Thursday, 5th March 1914.

Mr. FRANK BRAYBROOKE SMITH, Secretary of the Department of Agriculture for the Union of South Africa, called and examined.

(*For the evidence of this witness on "Land Settlement," "Cotton," and "Fruit," see pp.* 9, 274, *and* 318.)

3748. **(Chairman.)** How long have you occupied your present post?—I was appointed Director of Agriculture in the Transvaal in 1902 and at Union was made Secretary of Agriculture for the Union.

3749. You have been good enough to furnish the Commission with a letter on the subject of the working of your department. (*Letter put in as follows :—*)

Department of Agriculture,
Capetown.

SIR,

IN accordance with the promise I made to you I have the honour to furnish the following brief notes on the points mentioned by you :—

The Union Department of Agriculture.—The duties of the Department of Agriculture are confined to the assistance of the agricultural industry, and its chief functions are—

(1) To protect the live stock and crops of the farmers from diseases.
(2) To conduct research with a view to devise methods of reducing the risks and expenses of farming and increasing the returns from it.
(3) To educate the farmers.
(4) To organise the farmers and assist them in obtaining markets for their produce.

The Forestry Department, which is included in the portfolio of the Minister of Agriculture, deals with forestry and the fixing of drift sands.

The Lands Department has charge of the Crown lands, and deals with land settlement; and the Irrigation Department, which is included in the portfolio of the Minister of Land, has charge of irrigation and the obtaining and conservation of water generally, and of meteorology.

The Land Bank grants loans to co-operative societies and to farmers, both voluntary and involuntary, *i.e.*, loans applied for by the farmers on their own initiative and loans on account of expenditure necessitated by the obligatory erection of dipping tanks for cattle or sheep, or of fencing, under the Stock Diseases or Fencing Acts. As was the old Transvaal Department, the Union Department has been framed on much the same lines as the U.S.A. Department at Washington, and I should here like to acknowledge our very great obligation to that department for advice, for obtaining officials for us from time to time, and for their publications.

In organising the Department of Agriculture the aim has been to entrust each branch of its work to specialists, and to allow them to concentrate their whole attention thereon. The divisions of the department and of the expenditure thereon last year were as follows :—

	£
Administration, including grants in aid to agricultural societies.	49,599
Veterinary (control of contagious diseases).	117,982
Veterinary research	57,593
Sheep—eradication of scab and improvement of sheep and wool.	101,314
Dairying	6,554
Botany	7,076
Tobacco and cotton	14,820
Horticulture (including inspection of fruit).	4,348
Viticulture	4,309
Entomology	17,620
Chemistry (partly undertaken by the laboratories of the Department of Interior).	1,641
Publications	4,173
Co-operation	3,439
Dry farming	5,036
Guano Islands	5,036
Grain inspection	3,777
Field cornets (shortly to be transferred to Department of Justice).	24,755
	£478,566

Services rendered by other departments, such as Public Works, Printing, Post Office, &c., are not included in the above, nor has the revenue, which in some cases, such as the Guano Islands, is considerable, been deducted. Full details of the receipt and expenditure and personnel of the department are given in the estimates of expenditure and in the report of the Department of Agriculture and of Agricultural Education and at the end of the "Agricultural Journal."

Agricultural education, though an integral portion of the Agricultural Department, is provided for in a separate vote. There are four large and well equipped agricultural schools or colleges and experiment stations, and a fifth is in progress of establishment. The fees charged at the schools are 50*l.* per annum and a number of bursaries are given for students in poor circumstances. There are at present 215 students at the schools. In addition to complete courses the schools held short courses for farmers, and the staffs of the schools and of the department deliver lectures at farmers' meetings, act as judges at agricultural shows, and visit farmers on their farms in order to advise them. The vote for Agricultural Education this year is 115,357*l.*, and the amount of travelling undertaken by the itinerant instructors and inspectors of the department may be gauged by the fact that no less than 45,000*l.* was spent on travelling last year.

The provision for scientific research and itinerant instruction is still insufficient and will have to be increased.

The obtaining of officers for the department has been a great difficulty, and without the assistance we have obtained from U.S.A. and Canada, I do not know what we should have done. I am glad to say Great Britain is now waking up, and more attention is being devoted to the training of men for agricultural education and research. At the present time scholarships have been granted to about 30 young men for four years to study different branches of the science and art of agriculture in England, America, and elsewhere.

In addition to the assistance rendered to farmers by the Agricultural Department, the Lands Department disposes of Crown lands at reasonable rates and on easy terms and it also advances up to four-fifths of the value of farms bought by farmers under certain conditions.

The Land Bank advances money to farmers at a reasonable rate of interest, and where farmers are compelled by law to erect dipping tanks for cattle and sheep on farms the law provides that the cost of the same shall be advanced by the bank and be a first charge on the holding until paid off.

The Irrigation Department advises farmers in the obtaining, conservation, and utilisation of water and how to bore for water at reasonable rates.

The Forestry Department advises farmers in the planting of trees and sells trees to them at low rates.

The railway rates are very favourable to farmers: for instance, there is a flat rate of 10s. per ton for mealies all over the Union and rates for South African produce, fruit, and artificial manures are correspondingly low.

The agricultural parcel post is very reasonable, parcels not exceeding 11 lbs. in weight being carried for 1s.

Under the new mail contract pure-bred stock for breeding purposes, with the exception of rare horse mares, are carried free from Europe. Since the date on which the contract came into operation (October 1912) 300 horses, 1,390 cattle, 100 pigs, and 250 sheep have been imported under it; the reason why the sheep are so few is that the majority of the sheep imported into South Africa are merino sheep from Australia.

Under the mail contract the following rates are charged from any port in South Africa to London and certain other British and Continental ports:—Maize, 10s. per ton; fruit, 40s. per ton in cold storage if passed by Government grader and 50s. per ton if not graded; citrus fruit and pine apples in ventilated hold 25s. per ton; though there is no export of butter and meat at present, provision has been made in the contract for the same.

The Custom tariff is also favourable to the farmers; livestock for breeding purposes, artificial manures, grain bags and seeds (with the exception of potatoes) are admitted free, and agricultural machinery and implements and fencing material are charged a duty of 3 per cent.

The following figures extracted from the last census report may be of interest to the Commission:—

Population of Union.	European.	Other.
1904 - - -	1,116,806	4,059,018
1911 - - -	1,276,242	4,697,152

Number of European Farmers.

1904 - - -	77,926
1911 - - -	97,381

Livestock.

——	Cattle.	Horses.	Mules.	Asses.	Sheep.		Goats.		Pigs.	Ostriches.
					(Woolled).	Other.	(Angora).	Other.		
1904 - -	3,500,453	119,539	134,734	141,930	11,820,635	4,501,868	9,770,545		679,084	360,830
1911 - -	5,796,949	719,411	93,931	336,710	21,842,215	8,814,444	4,275,335	7,487,644	1,081,600	746,736

The following figures are taken from the Customs Statistical Register:—

——	1907.	1912.
Value of Importations into the Union.		
	£	£
Butter - - - - - -	404,730	318,530
Corn and grain (including malt).	998,453	560,409
Flour and meal - - -	610,343	498,717
Eggs - - - - - -	70,243	67,753
Dried fruit and dates - -	76,104	76,034
Fruit, fresh (including nuts) -	60,648	74,829
Bacon and ham and salted meats.	224,256	225,775
Milk and cream - - -	422,266	424,460
Value of Exports from the Union.		
Wool - - - - - -	3,128,957	4,780,594
Angora hair - - - -	965,687	967,286
Hides and skins - - -	947,649	1,691,014
Ostrich feathers - - -	1,814,232	2,609,638
Maize - - - - -	184,346	443,492
Fruit, fresh - - - -	23,812	54,735
Total produce of land -	7,363,322	11,163,506

Unfortunately, there are no figures to show the increase in land under cultivation, but it is evidently considerable.

South Africa has an unenviable, but, unfortunately, justly deserved, notoriety for the variety and virulence of its diseases of animals and plants, for it is probable there is no country in the world more afflicted with the ordinary contagious diseases and with obscure epizootic diseases than it. The common contagious diseases of live-stock are rapidly being exterminated or got under control, and preventives or remedies are being discovered for many of the epizootic diseases. The Veterinary Research Station, Pretoria, is one of the best of its kind in the world, and the Plant Pathological and Entomological Laboratory are also good, and thanks to the more effective control of disease, to the discoveries that have been made, and to the introduction of the dipping of cattle and the increase in fencing, farming has already become a much less risky occupation than formerly.

The losses from drought and hail, to which the greater portion of the country is very liable, are considerable, but by the conservation of water, improved methods of cultivation, and the distribution of crops they can be greatly reduced. Though the risks of farming are considerable, the returns on the average are good and in some cases high, and during the last few years the farmers have prospered and land has increased rapidly in value.

You specially asked for information respecting co-operation and the export of maize, and for my remarks on the evidence given in London on the Plant Disease Regulations. There is no co-operative Act for the Union, but there are Acts in the Transvaal and in the Orange Free State. Full particulars of the work will be found on pages 22 and 317 of the report of the department for last year, and particulars of the export of maize will be found on pages 26 and 259 of the same report. The membership of the 20 co-operative societies in the Transvaal last year was 11,558 and their turnover 794,921*l*. With respect to the Plant Disease Regulations I think it will not

be possible to substitute inspection in another country for inspection here, nor do I think it would be possible for all the British Colonies to formulate regulations identical in every particular, as their circumstances differ, but as our knowledge of plant diseases increases the tendency is for regulations to become more uniform and stricter. It is recognised that inspection is only a partial safeguard, and in respect of plants—a portion of plants—that are particularly liable to convey dangerous diseases, the tendency is to exclude them altogether; for instance, the United States of America has recently prohibited the importation of potatoes from Great Britain and for some time Great Britain has prohibited the importation of live-stock from any country. It should be remembered that diseases which may not be very troublesome in a temperate country like Great Britain may be very dangerous in a very warm country like this. There is one point I should like to make in connection with quarantine stations, and that is that the English Board of Agriculture should hurry up with the quarantine station for the testing of cattle for tuberculosis prior to export. This would be a great boon and is badly required. The chief agricultural produce we have to dispose of at the present time are wool, mohair, ostrich feathers, fruit, maize, tobacco, wattle bark, possibly wine, and any assistance which the Commission could give us to obtain good markets for them would be greatly appreciated.

I have not discussed land settlement, as that subject is dealt with by the Lands Department.

I have, &c.,

F. B. Smith.

Secretary for Agriculture.

The Secretary,

Dominions Royal Commission.

3749A. **(Chairman.)** Perhaps you would like to supplement that statement, or would you prefer to answer questions?—I have one or two remarks I would like to make. I did not make myself quite clear with regard to the regulations for the export of plants and so on from Great Britain to the Colonies. I want the Commission to understand that uniform regulations would necessitate uniform legislation in the whole of the Colonies. I gather that the Commission are in favour of regulations being drafted by the English Board of Agriculture in the first instance and submitted to the Colonies, but I would like to point out that that would not meet the case because legislation is also involved, and one would have to have uniform legislation in order to pass uniform regulations, and then, again, I notice there was a long discussion between Mr. Rodgers, I think it was, and one of the Commissioners, the late Sir Richard Solomon, about the regulations in the Colonies and about not being advised of alterations to these regulations. As a matter of fact in the first instance the regulations appear in the Government Gazette invariably some time before they are put into force, and the Gazettes are sent to the High Commissioner's office in London and probably to the Colonial Office, so there should be ample time to gather any changes in the regulations from the Government Gazettes. In the discussions they seem to have overlooked this point entirely.

3750. Is there anything else which you desire to add?—No.

3751. I will ask you a few questions based on your letter. You say the duties of the Department of Agriculture are confined to the assistance of the agricultural industry, and the first of its chief functions is to protect live-stock and crops of farmers from disease?—Yes.

3752. We all know that South Africa is particularly liable to severe pests. What progress has been made in protecting the country?—We have made excellent progress in protecting the country from what may be termed the ordinary contagious diseases. In the first instance we inspect all animals coming into the country and in that way we have managed to keep out any fresh contagious diseases. We have also controlled the ordinary contagious diseases in the country and by quarantine and slaughtering of the animals we have stamped out most of these diseases. There is no foot and mouth disease, there is no rinderpest, and hardly any lymphangitis and very little lung sickness, which used to be a great curse to the country. All these have been practically eradicated and we are in a fair way to eradicating glanders and all the ordinary contagious diseases with the exception of scab and tuberculosis, which are still giving us trouble. In regard to epizootic diseases of animals, with which, I suppose, we have been scourged more than any other country in the world, we have also made great progress. We had first of all to investigate those diseases to determine what they were and then to devise methods of dealing with them. At Pretoria we have a first class laboratory for dealing with stock diseases common in warm countries, under Sir Arnold Theiler. It costs us about 40,000*l.* to 50,000*l.* a year to maintain, and it is probably the best and most complete of its kind in the world. One by one we are discovering the nature of the various diseases and getting remedies or preventives for them, so that we are rendering it possible for farmers to keep their cattle alive and to protect themselves from losses under this head which they have hitherto sustained. We have not overcome these difficulties entirely, but in regard to disease generally we are on a very different footing to Canada, Australia, and most of the other Colonies, which have few, if any, enzoic diseases. We are connected with the Old World, and our diseases have come mainly from the hot-bed of diseases, Asia, and worked down through Egypt to the southern part of the Continent. This is an unfortunate country in that respect, because these diseases seem to have become concentrated here. Still, the position is very different to what it was some few years ago, and the future is full of hope.

3753. Now, eliminating the extra risk of diseases or these pests to which you refer, is the country highly suitable for rearing cattle?—The country is a good cattle country; given water the stock do well.

3754. Then, with a suitable climate and suitable soil and with freedom from these pests and diseases, you think there is great hope for the future?—Yes.

3755. Do you find farmers and the population generally ready to adopt scientific ideas and to follow out scientific regulations?—We find the farmers in South Africa are less conservative than farmers in Europe. The farmer here has not got into settled ways. His practice is not developed to the same extent as in Europe. In Europe, practice has developed so well through long centuries that it takes a great deal to get the farmer to alter his ways, and as a matter of fact he often knows more than his advisers can tell him, because his practice, based upon centuries of experience, is worth a great deal of theory; but here farmers have not had all those centuries of practical experience in tilling the soil that farmers in Europe have had. The population here, so far, with the exception of the Western Province, has been a shifting one, and, therefore, they have not that intimate acquaintance with the different soils and the different conditions which is possessed by the farmer in Europe, and they are more inclined to listen to advice than the farmer over there. It is easier to lecture to them.

3756. You find them amenable to the Agricultural Department?—Yes, on the whole. Of course, you have the Kaffirs to consider, they want a lot of watching. If you have a strong body of officers to watch them they are all right, but they do not understand the reason for the regulations for the control of disease unless those reasons are brought home to them by very painful experience. When they have lost half their cattle by East Coast fever and they see that dipping will save them, they will obey our instructions, but in the first instance, when the disease is beginning to spread, which is, of course, the most critical time, you have great difficulty in dealing with them.

3757. The second of your functions is to conduct research with a view to devising methods of increasing the returns of farm produce?—Yes.

3758. I understand you have a large research department at Pretoria?—Yes.

3759. Is that in close touch with similar institutions in the Mother Country and in the Colonies?—We get all their literature, we are in close touch with the Agricultural Department at Washington; we have had far and away more assistance from the people at Washington, I think, as regards experience and information than from anywhere else. From Canada we have had a great amount of help also, and we have sent many of our young men as students to Guelph, and they have come back to this country and have been a great help; we have also had several Canadians in the agricultural service here.

3760. Have you had much help from the Mother Country?—In the first instance practically none, but during the last few years they have roused themselves more in England and we have had some assistance of late from Cambridge and elsewhere, but we do not get the same class of assistance as from the United States. We have sent some of our students also to Australia and they have gained a great deal of valuable knowledge, particularly from the Hawkesbury College and the Sydney Technical Institute.

3761. Is the inferiority of the assistance you gain from England due to inherent conditions or to bad organisation or lack of co-ordination?—It was partly due, undoubtedly, to different conditions, it was more largely due to the fact that in England the Board of Agriculture until recently was practically an executive body. It was staffed largely by laymen, its different divisions were controlled by laymen, and they did not set out to help farmers or to conduct research in the same way as they do in Canada and the United States; but lately they have roused themselves a very great deal and are taking a very great interest. Our Chief Veterinary Surgeon went to England to become Chief Veterinary Surgeon there, and he has done a great deal to bring about a better state of affairs.

3762. Are you in close correspondence with the Imperial Institute?—Yes, I know Professor Dunstan well and I am in correspondence with him.

3763. Are they able to give you any assistance?—Yes, in this way, for instance, if we want a good account of cotton, or wattle bark as a tanning material, they help us a good deal and furnish most valuable reports.

3764. And Kew Gardens?—They have not been able to do much because they do not quite take up the lines of economic botany that we want.

3765. Can you suggest any means by which the assistance rendered by the Imperial Institute could be developed?—I do not know that I could, I think they do as much for us as they can; I do not think they can do more.

3766. Your third function is to educate farmers?—Yes.

3767. How do you do that?—We have in various parts of the Union five agricultural colleges, the most complete is at Potchefstroom, where we have a farm of 2,500 acres. There we have large quantities of first class stock and large quantities of land under cultivation. We give the student a first class training in practical agriculture and a fairly good training in the science of agriculture. At the college they also conduct experiments and farmers can go there and see the experiments for themselves. Besides that there are itinerant inspectors who travel through different areas and lecture to the farmers.

3768. Where are those colleges?—There is one at Potchefstroom, about three hours' journey from Johannesburg, which I sincerely hope the Commission will be able to visit. In addition to showing what we have in the way of a first-class college it also shows what the country can produce, because the college was established on a bare piece of land less than eleven years ago and now you will see a flourishing farm of about 2,500 acres with splendid crops and stock.

3769. What is the duration of the course at that college?—Two years.

3770. In Australia we found that there was a growing demand for men who have gone through a short agricultural course as opposed to an extended one?—We are just establishing short courses here; we had about 70 students last year at Potchefstroom for two months. They were highly technical courses. We dealt with the "how" rather than the "why."

3771. Shall we say that they were more practical?—Yes.

3772. Do you think you will be able to develop that system?—Yes, and to develop the system of itinerant inspection.

3773. Your itinerant inspectors exercise their functions in what way?—They travel amongst the farmers. For instance, we have wool and sheep experts who lecture on the preparation of wool for market, the grading and sorting of sheep, and judge at agricultural shows. They visit farmers, advising them as to the suitability of their farms for sheep and how to manage them, and what type of sheep would best suit the farm. The dairy expert does much the same kind of work in regard to milk, butter, and cheese, and the horticulturist goes round advising as to the suitability of trees and about the packing of fruit.

3774. What about instruction for new arrivals in the country. Do they have any special course?—We always advise them to go to one of the colleges for a couple of years; it takes fully that time for a man to get acquainted with the country, and we keep them there for the mere cost of their board. We only charge 50*l.*, and they cannot live cheaper. After a man has been there for a month or two, unfortunately, he wants to start farming for himself, and we have great difficulty in persuading young men to obtain practical experience before commencing to farm on their own account. They usually lose money and become disheartened.

3775. If two years is too long is there any possibility of a shorter course?—Well, it is a short apprenticeship for an occupation like farming. In England, we are told, it takes twelve years to make a competent agricultural labourer. If that is so, these men who have to do all the work themselves, and also to teach the Kaffir, cannot very well get much benefit in less than two years. If I had a son I should not like him to commence farming with 1,000*l.* or 2,000*l.* after only two years' experience.

3776. Now, your fourth function is to organise the farmers and assist them in obtaining markets for their produce. In what way do you do that?—In the Transvaal and the Free State we have good co-operative Acts, we have organised there co-operative societies. Before Union the Free State did a great deal in organising co-operative dairies, and we are continually in touch with them, giving them advice and assistance, also with the co-operative tobacco societies, and through the Trades Commissioner in London we keep a close watch on the markets in England and Europe, and publish accounts of the prices which are being realised for fruit and other produce. The Trades Commissioner sends an annual report and also a weekly report, which gives information on the condition of the produce which we send home, and the price it realises, &c.

3777. Do you find the farming community ready to adopt co-operation?—There is no trouble in getting them to adopt it, the trouble is to keep the societies up to the mark. When societies have been established it often happens that all goes well for a time, but then the directors begin to get slack and the secretary is left to manage the thing himself. Of course, if he is a good man all goes well, but if he is the reverse there is trouble. Under the Act every individual member is liable for the whole liability of the society, but even that does not make them careful at times.

3778. The Government, I think, have had great success in organising irrigation works on co-operative lines?—Yes, and also for fencing and dairying, and the export of mealies. Our co-operative societies in the Transvaal had a turnover last year of about three-quarters of a million, which, for societies only formed a few years ago, is a good beginning.

3779. Are they developing?—Slowly. We do not want them to go too fast or they may go wrong.

3780. What can you say with regard to the cultivation of tobacco. I think some attempt has been made to introduce Turkish tobacco?—Yes, that has been

tried in the Western Province, and I think tobacco and citrus fruit will do particularly well in South Africa.

3781. You consider those two of the most promising crops?—Yes, next to mealies and the ordinary farm crops.

3782. Is your soil suitable for the production of high-quality tobacco?—Yes. It is good for Virginian tobacco, and in the lower-lying and warmer valleys it is good for Turkish tobacco.

3783. You state in your memorandum that railway rates are very favourable to farmers. There is a flat rate of 10*s.* a ton for mealies all over the Union?—Yes.

3784. What do you say regarding the possibilities of mealie cultivation?—Very good. Mealies is the chief crop.

3785. Do you see a large increase in this direction?—There will be a large increase. I am not prepared to say there will be a large export, because I think the tendency will be to consume it in the country in feeding the stock.

3786. Taking the whole question of agriculture and South African exports at the present time, the major portion of South African exports, I understand, are mining products?—Yes.

3787. Now in the event of that falling off, in what direction do you say that South Africa can supply its place from agriculture?—We shall develop along the lines on which we are going. Our exports are certainly not very much at present; I think about twelve million pounds of agricultural produce.

3788. As compared with fifty million pounds of minerals?—Yes, roughly. But at any rate in the last five years our exports have doubled, and you will see from the census figures that the stock in the country is increasing enormously, so that we shall soon, I hope, be able to improve our export figures very much.

3789. Therefore, your reply is that you see no special development in any one direction, but you hope for general development?—Yes.

3790. Now you have been good enough to give us a comparison of the live-stock, sheep, pigs, and so forth, in 1904 and 1911. 1904 was perhaps rather a low level to start from?—Yes, because in 1902 there was no stock in the Free State or the Transvaal, practically nothing. There were a few old and diseased horses left over from the war, and that was about all.

3791. How would these figures for 1911 compare with a normal year before the war, say, 1898 and 1899?—I should doubt whether we have got back to the quantity of stock that we had in the Transvaal before the war.

3792. And in the Cape?—I should say we have just about reached that level.

3793. Can you give the Commission any figures?—There were none for the Transvaal or Free State before the war, and I doubt whether there were any for the Cape.

3794. You have not got back to the number of live stock that you had before the war?—No, not quite.

3795. And when you reach that level do you anticipate a very considerable and rapid progress?—Yes, I think so, because the land to-day is being farmed so much better, and the tendency is to paddock farms off and to supplement the natural veldt by silage and different foods from the arable land, so the amount of stock should be much greater.

3796. You consider that, unfortunately, there are no figures to show the increase of land under cultivation, but that this increase is evidently considerable. In future will you have such figures?—Yes, at the last census they took account of the area of land under cultivation, but at the census of 1904 this was not done; from now on we shall have figures.

3797. Are those figures accurate?—I should say moderately accurate, because the farms are so large, and the areas cultivated are so very irregular in shape, that the farmer can only give a rough guess of their extent.

3798. You give the total produce in 1907 as seven millions, and in 1912 eleven millions. What do you mean by the total produce of the land?—I mean the total produce exported.

3799. I see the amount of mealies has decreased?—Yes, but that, to a certain extent, is a good sign, because it shows they were used locally for fattening the stock.

3800. Has the special rate for the export of maize both on the railways and oversea proved of very great value to the country?—Yes. When the maize export was begun, arrangements were made whereby a farmer could take his maize to the station and get it sent straight away to London, and, if necessary, sold by the High Commissioner for 2*s.* 6*d.* a bag. That was a very reasonable rate, the sea rate was 10*s.* and the railway rate was 10*s.* and incidentals 5*s.* per ton; the effect of that was that the farmers at once realised there was no chance of a glut in mealies; before that enough mealies were never grown in the country because the farmers were afraid that the mines could not take them all, but after they had this channel open to them, so had no such fear. Further, they dealt straight at the railway station, or with the merchant at the port, or with the co-operative society inland, instead of with the local storekeeper.

3801. Well, that has been curtailed by the exceptionally bad seasons during the last three or four years, I understand?—The decrease in the export of maize is due partly to bad seasons, but also to the increased consumption in feeding stock. In the old days farmers never dreamed of feeding stock with maize, now they are doing it very largely.

3802. Is that desirable?—Yes, it helps the animals in times of drought, and helps in the production of milk.

3803. So the decrease in the export of maize is not entirely due to drought?—No, I think it is a good sign in one sense, because it shows better farming.

3804. **(Mr. Campbell.)** With regard to the export of maize and the apparent decrease, is it not due to the fact that in the years 1909 and 1910 there was a very large over-export of maize from this country, and a large amount of it had to be re-imported?—No, very little, I think; about from 40,000 to 50,000 bags had to come back.

3805. Well, there was an over-export?—Yes, but if maize makes a very high price in one part of the year, farmers are tempted to sell.

3806. One witness said that maize was sold in England or some other country at a cheaper rate than in South Africa. Is that so? He suggested that there was some combination of sellers here which kept the price up?—No, I do not think so; the only combination of sellers that I know of is the Central Co-operative Agency in the Transvaal. There is a central agency in Johannesburg which focuses all the maize belonging to the affiliated societies, and enters into contracts with the mines. Probably this year they will make contracts for 200,000 or 300,000 bags at a fixed price, but I do not think there is any other big combine.

3807. Is the Transvaal the greatest producer of maize?—It depends on the season. It may be the Transvaal or it may be the Free State, it depends which gets the best season.

3808. I suppose there is still a fairly large export of maize?—About 400,000*l.* last year, I think. At present quite a lot of mealies are going away.

3809. So that these concessions given by the railways and the shipping company have been of great assistance?—Yes.

3810. With regard to the agricultural schools and their work. Do you find that the students settle on the land when they have left the schools?—Yes, the majority.

3811. There is no tendency for them to become experts and float off to some other country?—No.

3812. Do you destroy animals under your Stock Diseases Prevention Act, and do you pay compensation?—Yes, not full compensation, but a portion of their value.

3813. What proportion?—It is according to the different diseases. It varies from one-quarter to one-third.

3814. In the matter of dealing with these diseases, do you find that any serious difficulty occurs in the native States such as Basutoland and Swaziland?—We

have a ring round them, and no animal is allowed to come from them without being inspected.

3815. Has the prevention been as effective in these two States as in the rest of South Africa?—Yes, I think so. They have veterinary surgeons in these territories, and the Administrators of the two Protectorates you have mentioned have done uncommonly well.

3816. In speaking of co-operation with the United States Department of Agriculture, you seem to have, generally speaking, co-operated with the United States authorities in all classes of work which you have undertaken. I think you referred to the Agricultural Land Bank as being largely borrowed from the United States?—No, I do not think I said that, I do not think they have a Land Bank in the United States, as a matter of fact, neither have they got an agricultural parcels post; that was one of the things which the United States Commission, which recently visited England, particularly inquired into.

3817. You have received information from the United States Agricultural Department as to dealing with pests?—Yes.

3818-19. Now, in your inquiries into certain diseases peculiar to South Africa you have had assistance, I believe, from the Imperial Institute in your investigations, have you not?—In regard to what disease?

3820-21. I forget the name of the disease?—Would it be bitter pit in apples, because that is a thing which has been bothering us.

3822. No, it is a disease in animals?—No. With regard to animals we write to the Royal Veterinary College in London. I may mention that we gave 500*l.* to Professor Nuttall, of Cambridge, in connection with his investigations into ticks. If we have had to make special investigations we have generally obtained the services of some expert authority. For instance, Professor Theobald, of Wye College, has named all our mosquitoes. On the other hand, we sometimes go to Berlin or elsewhere in connection with some veterinary trouble. We have recently got out the chief veterinary pathologist in Zurich to inquire into a particular cattle disease.

3823. Do you not think yourself that provided the technical and scientific departments in the Dominions were co-ordinated with some institution like the Imperial Institute or the Department of Agriculture you would cover a very much larger field, and that the result would tend towards greater efficiency and greater completeness, and that you would gain better results, so far as this country is concerned, rather than by going to an institution like the United States Agricultural Department, which is only, after all, dealing with a fairly limited area?—We got chiefly from the United States the idea of our organisation, and we have had many officers of the department from the States. We have followed their experiments in many directions, and we have kept in close touch with them all along, but when we have had special problems to investigate we have gone to a world-renowned man to deal with them. For instance, the Chartered Company had Professor Koch to deal with certain diseases, and I am hoping that we may succeed in getting Sir David Bruce to clear up some of the matters he was dealing with some years ago before he was switched off on to sleeping sickness. I do not think you can confine yourself to any particular institution. You must pick your man. Your specialist must come out and see the natural conditions of the country just the same as Pasteur, when he investigated the silkworm disease, lived for many years in the silkworm districts, and, when he inquired into the subject of fermentation, lived in the wine-growing districts of France.

3824. Do you not think that much help could be obtained by co-ordination by experts with a view to obtaining the necessary information?—Yes, but in the meantime that work is beginning to be done by the Agricultural Institute at Rome.

3825. What do you suggest? — Where Great Britain could help us more than anything else is to train men as experts. For instance, I have had just recently to send for three entomologists to America. From the Board of Agriculture I could not get a single man when we started the Agricultural Department. I could get dozens from America. When the U.S.A. took over the Philippine Islands, they immediately started an Agricultural Department there, and found men for it from the department. But the Board of Agriculture in England could not have started an Agricultural Department here.

3826. Did the Union take its idea of the Agricultural Department from the Transvaal institution, which had been founded by Lord Milner?—Mainly.

3827. Now, in regard to these co-operative societies, what ground do they work over? You form them for irrigation purposes, I understand; do they go in for the business of supplying and importing farm produce?—They may buy and sell agricultural implements and supplies for their members, but their functions are strictly regulated by Act of Parliament and regulations.

3828. Are they co-operative societies in the scientific sense of the word or joint stock companies?—Yes. Each member is severally and collectively liable for the debts of the association. They cannot trade outside the societies. They can only sell the produce of their members and buy stores for the members.

3829. **(Mr. Tatlow.)** Is it obligatory on the part of stock owners to report at once the outbreak of disease among their stock?—Yes.

3830. Is that enjoined by Act of Parliament?—Yes.

3831. Is a penalty attached?—Yes, a heavy one.

3832. In the case of compensation to owners for slaughtering, if the animal is discovered to be free from disease, what is done?—Then we pay.

3833. When an outbreak of disease occurs on a farm, do you slaughter wholesale or only the animals affected?—It depends on the nature of the disease, and whether quarantining would meet the case or slaughtering would be necessary.

3834. Are any records kept of the mortality by disease?—Yes, we have details in regard to ordinary contagious diseases but not in regard to ordinary local diseases.

3835. Now, in regard to these co-operative societies; you say that after they have been established for a time interest begins to flag: is not that rather unusual in regard to co-operative societies? Does the Government take any particular charge of these societies?—We have inspectors—one inspector to every four or five societies. We have to pay the closest attention to them. Perhaps some of them borrow 100,000*l.* from the Land Bank.

3836. They have to submit their accounts to the Government, I suppose?—Yes, they have their books audited by auditors approved by the Government.

3837. Does the Government assist by any money contributions?—No, only by loans from the Land Bank.

3838. Are these co-operative societies being formed more in connection with the fruit-growing industries than in other directions?—I do not know. There are one or two co-operative societies in the fruit-growing industry here which are really joint stock societies, and one or two genuine co-operative societies in the Transvaal for the disposal of citrus fruits.

3839. Has it given an incentive to the dairying industry?—Yes, in the Free State it helps very much and in Natal.

3840. With regard to the rate for mealies, which you say has been very beneficial—does that rate apply only to mealies for export?—No, to mealies in the Union too. At first it was only for export, and then the farmers in one part of the Cape Colony, where they could not grow mealies and wanted them to feed ostriches, complained to the Government and got a flat rate for the whole Union.

3841. I see the General Manager of Railways, in his report for 1912, refers to the quantity of maize exported to oversea markets as being less than in the previous year owing to increasing local consumption, consequent on the adoption of an internal maximum local rate of 20*s.*?—I think it has been reduced to 10*s.* since, but I am not sure.

3842. Do the stock owners report promptly the outbreak of disease? Have you any complaints?—No. Of course, you sometimes get delay in reporting. You occasionally get lazy men who think the animal died from snake bite, but on the whole we have good reports.

3843. Have you inspectors about the country discovering these diseases?—We have about 50 veterinary surgeons all over the country—each one travels through his own district—and a number of stock inspectors. We are able to diagnose most of our diseases by an examination of the blood of the diseased animal. We distribute to farmers and policemen glass slides, and the farmer smears blood on the slide and sends it to Pretoria, where it is examined, and we can generally tell what was the matter with the animal. The police and field cornets are of great assistance in this direction.

3844. Does your department make any arrangements in connection with the transit of livestock by rail?—No, the Railway Department.

3845. **(Mr. Sinclair.)** Have you co-operative dairy societies?—Yes.

3846. With factories?—Yes, in the Free State.

3847. And are the settlers who supply milk to the factories shareholders?—Yes, they divide the profit. They get an advance on their cream or milk, and after the balance sheet is made up any balance is distributed.

3848. And I gather they are working with satisfactory results?—Yes.

3849. Have they had the effect of getting a better price for the settler?—I do not think you can say that. But they have had the effect of providing a market. Because before there was no market.

3850. You told us that stock was increasing, although you had not yet reached the numbers that existed before the war. Is the tendency for stock to improve?—Greatly. You can tell that by the agricultural shows, and the farmers have taken a great interest in it. We have had a number of energetic men who have settled in the Union and have brought with them a knowledge and love of good cattle, which has had a great influence.

3851. Is there a tendency on the part of sheep to go back?—That is a debatable point, whether if you get an animal from Australia it maintains its quality or not. Much depends on the district. There are some districts in South Africa where shorthorn cattle would grow as well as in England, and there are other districts where they would become rats.

3852. It is a matter of feeding?—To a great extent. In many parts of the Transvaal a Hereford would thrive and a Shorthorn would starve.

3853. The settlers are alive to the necessity of importing strains from time to time to keep up the quality of their stock?—Yes, and in some cases they have gone to excess, and money has been wasted on fancy stock.

3854. Some evidence was given by Mr. Rodgers, of the Board of Agriculture and Fisheries in England, on the subject of the regulations. I think you have referred to that. What have you to tell us about it? You have some cases that you can give us, have you not?—I said in my letter I did not think it would be practicable to draw up absolutely uniform regulations for the whole of the Colonies, because the conditions differ, and the Colonies have to be careful, especially the warmer ones, like this, because a disease which may not be much of a nuisance in England may develop to an incredible extent under different conditions.

3855. This was the evidence given in England. The Transvaal Government informed the Colonial Office that they proposed to prohibit the importation of potatoes on the ground of danger from disease. The Colonial Office replied that there had been some misconception about the disease and suggested a certificate of freedom of the locality from the disease?—We wanted to make quite sure that there was no disease within five miles of the place where the potatoes were grown, and also that there had not been any disease for a certain number of years. We feared that the spores might still linger in the ground and affect the succeeding crop. Mr. Rodgers said that they inspected the nurseries, and suggested that their inspection of the nurseries ought to be sufficient. But my argument was that many seedsmen in England do not grow their potatoes in their nurseries, but on farms belonging to farmers, because they have not sufficient land themselves. Therefore, the fact that the nursery was inspected was not sufficient.

3856. But were they not prepared to give a wider certificate than that which was covered by inspection of the nurseries? They were prepared, were they not, to give a certificate covering the locality, but you suggested that the certificate should cover the district?—I think we said within a radius of five miles.

3857. Do you not think that the locality would be quite enough?—We do not know what locality might mean. It must represent some area. We said, "What do you mean by locality?"

3858. But district is also indefinite?—I think we said five miles.

3859. There was no intimation conveyed to the Mother Country of the introduction of regulations forbidding the entry of potatoes into the country, so it was said. Do you know anything about that?—I am not quite clear about it. I saw the evidence, but I would like to point out that we always notify the High Commissioner in London directly of any change or alteration in our regulations ; and, as I remarked at the beginning, whenever we alter our regulations, considerable notice is always given in the Government Gazette. So that the information should be available through that source.

3860. What is done now?—We immediately notify the High Commissioner, and he notifies the Colonial Office and the Board of Agriculture.

3861. Do you still adhere to the five-mile limit?—Yes.

3862. What was objected to in England apparently was the need for giving the name not only of the locality, but of the whole county?—I think myself that county is a bad term.

3863. **(Chairman.)** You would reduce what was called county here to a five-mile limit?—Yes.

3864. Perhaps you will communicate that to the authorities in England?—Yes, I had a letter by last mail on the subject.

3865. You will take action?—Yes.

3866. **(Sir Jan Langerman.)** About the diseases—you have shown what progress has been made in stamping out disease in the country. Take horse sickness. Five years ago what was the rate of mortality among horses and mules?—The mortality among mules was such that practically the whole of the mules that were kept in the open in certain districts died of horse-sickness, and now they can be turned out at night with impunity.

3867. Mules more so than horses?—Yes, we have got on better with mules than with horses.

3868. What about East Coast fever?—What strides have you made in dealing with that?—The Transvaal is practically free.

3869. What about Natal?—We are improving considerably. In the Transkei the disease is bad.

3870. But originally did it not practically sweep the country?—Yes, so far as the low and middle veldt was concerned, but now it is well in hand.

3871. You told us that scab was also being dealt with. Is it on the decrease?—I think that tide is just turning. Certainly our organisation is good, and I am convinced that scab will decrease.

3872. So that in connection with new settlers there need be no fear of horse-sickness or East Coast fever among their cattle?—No. The settler is in a very different position to-day from what he was ten years ago.

3873. To show how the farmers themselves have progressed compared with five years ago, the carrying capacity per acre is now much larger than it was before scientific methods were adopted?—Yes.

3874. In regard to mealies, last year there was a short-fall in the exports, which you have explained by saying that it was due to home consumption partly.

How does the quality of our mealies compare with South American or North American mealies?—Oh, they are better.

3875. They command a higher price than any other?—Yes, they fetch a shilling or two a quarter more.

3876. Do you look forward to a bigger trade in future?—Yes, but I think that the home consumption will also greatly increase.

3877. Is there a greater acreage of mealies under cultivation every year?—Yes.

3878. I hear that in Natal they have erected machinery to extract vegetable wax from the stalk of the mealie. Have you heard about that?—No. I have heard of so many things being made from mealies that I should rather doubt it myself.

3879. **(Mr. Lorimer.)** In speaking about your land bank, I understand that the bank grants loans which you call involuntary, and then you explain these are loans in connection with the erection of fencing under the Fencing Act, and so on. In your memorandum there is an expenditure in connection with scab and the improvement of sheep and wool of 101,000*l.* Is that in addition to the expenditure under these loans?—Yes, this is entirely for inspectors, instruction, and administration.

3880. Does this amount include the money expended by the farmers themselves?—No, under our Stock Diseases Acts we have the power to compel any farmer who has cattle or sheep on his farm to erect dipping tanks. If we compel him to do so we also say, "You can borrow the money from the Government."

3881. Are you spending money on dipping tanks which you compel the farmers to erect and pay for, and are you spending in a similar way through the department money to the extent of 101,000*l.*? I mean to say are these sums cumulative—are they both spent?—Yes, this is purely administration.

3882. Now what are the Guano Islands?—They are some islands round the coast of South Africa from which we obtain our supply of guano for the farmers.

3883. Are they extensive?—They are small but numerous.

3884. Are they like the Peruvian deposits in South America?—No. This is fresh guano which is deposited each year by penguins and other sea birds.

3885. Is the expenditure 5,000*l.*?—No, that is a mistake; it should be 25,000*l.* The guano is sold to the farmers at cost price. As a matter of fact guano in London is worth about 11*l.* or 12*l.* a ton, so the farmers get the benefit of 5*l.* or 6*l.* a ton on every ton of guano we distribute.

Senator the Hon. Marshall Campbell, called and examined.

(*For the evidence of this witness on "Mail Service and Freights" and "Forests" see pp.* 75 *and* 289.)

3886. **(Chairman.)** I think you have some evidence to give regarding the sugar industry in Natal?—Yes.

3887. What is the present position?—Last year we produced 92,000 tons.

3888. What are the figures for recent years, are they increasing?—Since Mr. Chamberlain was here the industry has gone up by leaps and bounds.

3889. What is the possible or probable extension?—I think there will be about 50 per cent. more than we have now under normal conditions and circumstances.

3890. Is that due to extension of area or more intensive cultivation?—To the limitation of suitable areas.

3891. What market does it go to?—Our market is in South Africa. We did send some sugar to England about three years ago, but we were penalised under the conference about 2*s.* a ton.

3892. On what account?—They said we received a bonus on our railway preferential rates to Johannesburg; I think that was only on about 25 per cent. of our sugar, but we were penalised to the full extent.

3893. That is under international agreement?—Yes.

3894. What proportion of the total consumption of the Union do you supply?—About 92,000 tons last year out of 120,000 consumed.

3895. So you supply, roughly, three-quarters?—Yes.

3896. You can increase your production by 30,000 tons a year without having to seek over-sea markets?—Yes.

3897. Where does the principal competition come from?—From Mauritius.

3898. Under what terms do you meet that competition?—The great disadvantage, so far as Mauritius is concerned, is in regard to the labour question, because our labour is engaged in India nominally at the same figure as theirs, namely, 5 rupees per month; but we have to pay in shillings, whereas Mauritius pays their labour in rupees. 5 rupees are equivalent to 6*s.* 9*d.* in our money. The rupee is not legal tender in this country.

3899. Is practically the whole of the labour in the sugar industry Indian?—About 92 per cent. on our place.

3900. Is that Indian labour under white supervision?—Yes.

3901. What about competition from Portuguese East Africa?—That is a very serious competition, they compete with us very seriously in the Transvaal, they are allowed to come in duty free, and if we send sugar into the same country we are charged 24*l.* a ton duty.

3902. I suppose they come in free under some convention?—Yes, it was a convention made by Lord Milner.

3903. That convention was made for the purpose of getting native labour, was it not?—Yes.

3904. What is the duration of that convention?—ten years. I think about five or six years have still to run.

3905. Are there any other points connected with the sugar industry which you would like to bring to our notice?—Not specially. I should have liked to mention one matter, but it affects the fiscal question.

3906. Well, that is outside our competence. Are there any other non-fiscal points?—There is nothing more about sugar.

3907. Outside sugar are there any other crops on which you would like to speak?—No, not specially. We have fibre. We have just started the fibre machinery, and we do not know yet how it will turn out.

3908. What is the fibre produced from?—It is produced from the aloe.

3909. Is that an industry with a considerable future?—Yes, a very big future.

3910. **(Mr. Sinclair.)** Does the sugar still get preferential treatment on your railways?—Yes, to Johannesburg.

3911. I observe that in the statement of exports of South African produce to countries over-sea in 1909 the exports of sugar and sugar products were 16,116*l.*; in 1910 there is an enormous jump to 47,513*l.*, and then there is a fall in 1911 or 1912 to approximately what the figures were in 1909. What accounts for the enormous jump in 1910?—That was a bumper crop.

3912. Was that due to the exceptionally favourable season?—Yes.

3913. Did that mean rain?—Rain and sunshine at suitable times.

3914. **(Mr. Campbell.)** Is the production of sugar irregular? Are the seasons irregular?—Yes. It is only a semi-tropical climate. We reap every two years.

3915. You speak of the Sugar Convention limiting your export, but so far as Great Britain is concerned the Sugar Convention does not exist, does it?—I think it finishes this year.

3916. After this year you will be able to export without any countervailing duty to Great Britain?—Yes.

3917. Would you be able to send sugar from here to Great Britain profitably ?—I do not think so.

3918. What is the reason ?—It is a question of labour, just in the same way as it is in Australia.

3919. Is not the labour cheap ?—Yes, but it is a vanishing quantity.

3920. You do not expect to get any further labour from India ?—No, it has been stopped.

3921. Cannot you adapt the indigenous coloured labour to this work ?—The Zulu looks upon this work as *infra dig.*, he thinks it beneath him to take a hoe in his hand.

3922. Why is that ? Sugar cultivation is not very different from mealie cultivation ?—The Zulu does not take a hoe.

3923. Well, his wife does ?—Yes.

3924. Will not they do the work ?—No.

3925. Is not the supply of labour in Natal sufficient to meet your demand ?—No. We have to compete against the goldfields for the labour.

3926. But the goldfields only require men, and you could make use of the women ?—But the women would not go to work.

3927. How do the yields of sugar per acre compare with other countries, say Java ?—Ours correspond more with Queensland.

3928. They are not so high as the Java yield ?—No, and not so high as Honoluln and Cuba. I would like to say that about five or six years ago Australian sugar was dumped into this country about 12*s.* 6*d.* a cwt., and it was being sold in Melbourne at the same time at 19*s.* 6*d.* to 21*s.* 6*d.* a cwt. Every now and then that happens to us. They make big contracts with Java, and they have to dump the surplus sugar into South Africa or somewhere else. It would pay them better to throw it into the sea. We cabled to Australia and we found out the price sugar was being sold in that city on the same day as it was sold here at 12*s.* 6*d.*

3929. You have an import duty on sugar, except in the case of the Portuguese territories ?—Yes.

3930. What is the duty ?—3*l.* 10*s.*

3931. Is there any excess of sugar here ?—No.

3932. **(Mr. Lorimer.)** Is refining as well as cane-crushing done in Natal ?—Yes.

3933. Then everything that is consumed in Natal is prepared for use in the market here ?—Yes.

3934. Is the cane sent to factories ?—Some of it.

3935. The bulk of it ?—No.

3936. And some growers have their own factories, I presume ?—Yes. We have 15 growers who supply our mill with cane, and the balance is our own cane. We buy about 7 per cent. from farmers round about.

3937. Do you do the crushing and refining for the smaller growers ?—Yes, but not altogether.

3938. Do you buy the cane right out from them ?—Yes.

3939. With a firm like yours to deal with, these growers can always find a market ?—Yes.

3940. Is the small grower increasing in number ?—Very much so in Zululand.

3941 So that a man can work a few acres of sugar along with other crops ?—Yes.

3942. And that cane is sent in to you ?—Yes, and to the other mills also.

3943. And what size of farm or estate would be considered necessary to justify a factory ?—About 10,000 to 15,000 acres.

3944. Are there many of these in the Colony ?—About eight of that size and a lot of smaller ones.

3945. Is every factory provided also with a refinery ?—No.

3946. How many refiners have you ?—We are making white sugar from the cane juice direct. That is not like the old times, when, as a rule, they sent it in barrels to the refiners. On the estates now they make a semi-refined sugar; it is not so pure as the refined sugar, but they make it so well now that it is very hard to distinguish one from the other.

3947. Is there any difference in your production or extraction as compared with the West Indies ?—No, we do the work equally well.

3948. You are satisfied with what you get ?—Yes. We have just introduced about 100,000*l.* worth of sugar machinery within the last five years, and we are keeping abreast of the times now. Up to six years ago we were very behind.

3949. You have renewed your plant ?—We have scrapped the old plant.

3950. What percentage of recovery do you get ?—As near the world's record as possible. We have brought the figure down from 20 tons of cane to 9½ tons last year, and the year before last it was 8½ tons of cane to 1 ton of sugar.

3951. So there is not very much left in the megass ?—No.

3952. And do you use the megass as fuel ?—Yes, it is practically perpetual motion when once you get started.

3953. But you have not got to the length of exporting ?—No.

3954. Are you within sight of supplying the Union ?—I think so in the next five or six years.

3955. And after that you will expect to export sugar ?—I think we will hardly be able to produce enough for the needs of this country.

3956. Will you kindly tell us the comparison of your prices here with the prices in the world markets, say, in London ? What do you sell your sugar at ?—We are guided by the London prices, which we get every week.

3957. What is the relation between the London prices and your local prices ?—It is the difference of freight and duty.

3958. You keep at a level which is just sufficient to keep the market ?—Yes, we have to keep under.

3959. You have freight insurance and duty in your favour ?—Yes.

3960. And you keep to that level ?—Yes.

3961. Suppose your production went up beyond the requirements of the Union, could you sell in London in present circumstances at a profit or not ?—There would not be much profit, because ours is a semi-tropical climate, and we reap our cane every two years, other countries cut it every year.

3962. So you could only use London as a market for your surplus produce ?—Yes.

3963. And you would almost dump ?—Yes.

Cape Town, Friday, March 6, 1914.

Mr. J. M. STEPHEN, Managing Director of the South African Milling Company, called and examined.

3964. **(Chairman.)** I understand you will give us information regarding the possibilities of wheat cultivation in the north-western district of this Province ?—Yes.

3965. First of all, what are the limits of the north-western district ?—That is rather difficult to say, but where the development is now taking place is on the Zak and Great Fish Rivers. In regard to our own requirements in the way of wheat and flour, if it would be of interest to you, I have here a statement showing the quantities produced in this country. In 1911 we grew six million bushels of wheat. I have put it in bushels because I think that is the custom in most parts of the world It is exceedingly difficult to get anything in the way of reliable statistics in South Africa; that has been my trouble in obtaining any

figures that I can submit to you with any degree of certainty, but I think these figures are fairly accurate. In 1911 we grew 6,034,000 bushels of wheat, sufficient for about six months' consumption. In 1912 our production was 7,705,000 bushels, nearly equal to 7½ months' requirements. In 1913, owing to severe drought in the Orange Free State and the northern parts of the Union, there was a considerable setback, necessitating importation on a rather high scale, but granted normal conditions in this country we might expect to balance production with consumption in about six or seven years, if our policy of steady expansion of railways is not arrested. The development of the Zak and Great Fish Rivers is due to the extension of the Carnarvon Railway, and would probably supply sufficient wheat to cover one-third of our deficiency; the remaining two-thirds may be looked for from increased production in the cereal districts of the Cape, the Transvaal, and from wheat lands in the Free State and Basutoland. If we grow enough to supply our own requirements it is as much as we can hope to do. I do not anticipate that we shall ever be in a position to export wheat; if we do it will only be in very moderate quantities. The increase of our production of wheat is something that deserves more attention from our governing bodies than it has hitherto received. Apart from economic considerations, I am of opinion that one of the greatest services that we can render to the Mother Country is to make South Africa absolutely self-reliant in the matter of primary foodstuffs, so as to free the authorities in Great Britain from the anxiety and cost necessary under present conditions to protect our foodstuffs in transit by sea in the event of serious European complications. That has been my view for many years, and it influenced me in taking up the Zak River scheme in connection with the company of which I am the Managing Director.

3966. I understand the consumption of wheat in the Union of South Africa is about 12 million bushels a year?—Yes.

3967. Is that increasing or decreasing or does the figure remain fairly constant?—I think it is slightly increasing, not so much on account of the increase of the white population, but rather of the fact that our natives are acquiring a taste for bread. When they come down to work at our ports they seem to get away from their native maize and acquire a liking for wheaten bread, so possibly the consumption is increasing.

3968. What is the price of wheat compared with the price of mealies?—There is a considerable difference; we are paying the farmer to-day for bags of 200 lbs. of wheat delivered at the nearest railway station, 19*s*. In regard to maize, we can get it down here just now for about 11*s*. per bag of 200 lbs., good quality. Comparatively little maize enters into consumption here; the native uses a certain amount, a limited amount is used by the white people, the larger portion is used for feeding cattle.

3969. Is it the case that it might suit the farmer better to grow mealies and export them, bringing in exchange the required amount of wheat?—No, because I think that our wheat lands would not grow maize so well. Take, for instance, the north-west district to which I have referred, and where we have tried maize. I do not know exactly, because we have only been there a couple of years, but I believe the results were not satisfactory; on the other hand, we can grow magnificent wheat and probably cheaper than in any other place in the world.

3970. Is that dry farming?—No.

3971. What about the influence of railway development in the extension of the wheat area?—I am hoping that there will be a considerable extension following railway development.

3972. Is railway extension going on at an adequate rate?—Not to please me individually, for we really have to depend on agriculture in South Africa to a great extent. We know that the mines, valuable as they are to-day, are a diminishing factor; we have to look to the future, and we need railways for the development of the country in the direction of agriculture. Take, for instance, this north-west district, it is one of the richest parts of the country; it is at present about 130 miles away from the nearest rail-head. The Government last session passed an Act to take the railway there. The Zak River Estates, which is practically a branch of the South African Milling Company, need about a quarter of a million of money putting into it before we have finished developing that proposition, and I am hoping that we shall go on modern methods right through and make use of mechanical power to a great extent, and I am also hoping that it will be a practical lesson to the agriculturists round about and induce them to adopt better methods.

3973. Is a new railway line contemplated?—Yes, they commenced the earthwork last week.

3974. When will that be finished?—In from two to two and a half years.

3975. Will that railway pay from the first?—No, I do not think so, but I look to development in other directions. We shall not confine ourselves to wheat; it is a great district for cattle; cattle disease is unknown up there; we shall have a number of side lines, and we are hoping that what we are doing will encourage others to develop. I hope it will pay the railway, as unquestionably it will pay the country.

3976. Have you an adequate labour supply?—No. That is a difficulty there, and that is why I feel it is absolutely necessary to go in for mechanical ploughing and power generally. We have now a farm tractor which we imported recently; the tests so far have not been altogether satisfactory, but in course of time we shall hit on the best method and we shall have to have several tractors.

3977. Will you have to rely on coloured labour?—We shall have a certain amount of both; we shall have to use the educated white man; in fact, we are gradually getting young South Africans there, because when the railway comes we shall have to go ahead at full speed, and as far as possible we are confining our selection to men who have passed through agricultural colleges.

3978. What does your land cost you?—Roughly, from 3*l*. to 4*l*. a morgen for irrigable land.

3979. Have you to pay for your water?—No, the water comes down the Zak river, which is an intermittent stream which depends upon rainfalls in the mountains in the districts of Prince Albert, Frazerburg, and Beaufort West. The river has been known to run for 60 days at a stretch; we can usually depend on its coming down twice a year, and then we dam it up and use it that way. We do not count upon more than five inches of rain.

3980. Is it a good ranching country?—That is another thing. We want to get the farmers round there to grow lucerne, because at times it is very dry, and the farmers have to send their cattle a long distance to Bushmanland. The district used to be splendid for wool. Calvinia, I believe, took the first prize at the first London Colonial Exhibition many years ago.

3981. Why has it gone back?—I think then they must have farmed on a very small scale, and they have not made the most of the rivers coming down, perhaps from want of capital. That is another thing; we have bought a good many of these farms from them, and I am hoping that the money that they have got from these farms they will use for developing other areas. I think it is from want of capital to develop their stock and make the most of the water which has prevented this district from coming to the front long ago, and besides that they had two or three years of drought, which killed off an enormous amount of stock.

3982. **(Mr. Sinclair.)** I gather that the wheat lands which this projected railway will tap are State lands?—No, not altogether; but there is still a fair quantity of land held by the Government, and close to us. The Government is establishing what one may call a closer settlement scheme, and they have made arrangements in connection with bringing water over our farms.

3983. Can you give us, roughly, the areas of land which will grow wheat and which are in the hands of the State and those which are in the hands of private

individuals, which will be tapped by this projected railway line?—I am afraid I cannot.

3984. Is most of it State land?—No, the irrigable land is more in the hands of the private people, I think.

3985. Then these railways will tend naturally to increase gradually the values of lands that are now held by private people?—Yes, of course.

3986. In view of that fact, has any movement been made by the State to resume the land before adding that value?—No.

3987. The settler who has been fortunate enough to acquire this land will therefore benefit by this capital expenditure of the State?—Yes.

3988. Is there any imposition by way of a rate or charge on these lands to help towards the cost of railways?—No, the cost of the railways will be borne by the State, but I suppose it is looked upon in this way: that there are so many indirect advantages that will accrue to the general community that it is the duty of the State to undertake this work. I expect that is taken into consideration, and then besides that we have to consider these people. We have been enjoying our railways close by for years, and when there has been a deficiency in the railways it has been met out of the general revenue, to which these people have contributed in the past.

3989 What is the area of the lands of which you have been speaking? What area of these wheat-growing lands would be sufficient for the new settler when they become available?—You mean the Government lands?

3990. You might give us them separately. Give the Government land first which is suitable for wheat-bearing. What area would be required to maintain an intending settler and his family?—It is difficult to say. I could not give it, but I think the Government are letting it out to these people down there at the rate of about 16 morgen of land to each family. I am not quite sure about these figures.

3991. Is it the intention to try to develop the new wheat-growing areas that may be made available in such a small way as by farming 16 morgen?—Yes. They are giving these pieces of land out to what they call down there indigent families: they are somewhat different from the class of people we know in South Africa as poor whites, they are rather a superior class, but they have no capital of their own.

3992. What capital would be required to take up such a farm?—As a first start, I should imagine if a man had about 100*l.* outside of his house and furniture, that would be enough. I think that would be sufficient to start on a very moderate scale. I am supposing that he is a man of thrift and energy, and if so, this would gradually help him on.

3993. Will the areas of which you have been speaking that will become available be absorbed by white people that are already in the country?—Yes, to a great extent.

3994. What room is there for intending settlement from outside?—Well, I do not know that there is very much there because land in that part is after all only very limited for wheat-growing on account of the fact that you can only successfully cultivate close to the rivers, so I do not think that one can say that the North-West district would offer for some time to come any very great inducement for people over the water.

3995. Generally speaking, and putting it broadly, the outsider who comes to this country to take up land must have a certain amount of capital?—Yes.

3996. If he comes here with capital he can get land and he can get cheap labour?—Yes.

3997. So that if a man has a reasonable amount of capital there would be a prospect of a comfortable livelihood?—Well, I should be inclined to say more. I do not know, and I cannot think of any country in the world that would offer better conditions to an agriculturist, provided he has a certain amount of capital, than South Africa, and provided there is a steady expansion of the railways. Much as I would like to see the white population of this country increased, especially by the up-to-date agriculturist, I am a little bit afraid that we are not justified in encouraging anything of that kind at the present time because the land in touch with the markets is now held so firmly and at such high rates. Outside you can get land that would encourage a man to farm, but where would he find a market? He is so far away from the railway that I am afraid there would be a danger not only of loss of all his capital, but also in an increase in the number of our poor whites; but I think that with the extension of our railways we can offer inducements to the pushing agriculturist.

3998. Are you in reasonable sight of being in a position to provide the bulk of your own food supplies?—Yes, but it depends on the extension of the railways. I really think we are going to equal our consumption in six or seven years.

3999. **(Sir Jan Langerman.)** Can you tell us what is the consumption of wheat and flour in the Union and what is the production in this country?—Yes, roughly about 12,000,000 bushels a year.

4000. What do we produce ourselves of that 12,000,000?—We grew in 1911 about half of our consumption and in 1912 rather more; we grew about sufficient for about 7½ months' supply. Last year, as you know, there was a tremendous drought throughout the Free State and Transvaal and northern districts of the Cape Province that brought down our production tremendously.

4001. I see you imported last year nine million bushels of wheat and flour?—Yes.

4002. Of course, the wheat area in the Union is very limited?—Yes.

4003. We have wheat in the Western Province and on the Basutoland border of the Free State?—Yes.

4004. With dependable wheat supplies?—We are doing more in the Transvaal now. I do not know whether we are going to be as successful as the Agricultural Department hopes, but we are not doing badly.

4005. But in the Transvaal the rainy season is at the wrong time of the year?—Yes, there is some danger of that.

4006. If we want to supply our requirements we have to look to the scheme you speak of in the North-West district?—Yes.

4007. Do you think you can grow sufficient wheat in the North-West district to supply our wants?—No. I am looking for increased production in our own districts. In the Transvaal I am inclined to agree with you that there will not be so very much, but there will be a certain amount. There is plenty of scope in Basutoland and the Free State and in our own Province. There will not only be this development in the North-West district, but considerable development in other parts, for instance, in the district of Caledon and in Bredasdorp. There we are steadily advancing.

4008. But granted that we have those areas for wheat-growing, we must assume that the farmers are not growing wheat because they can grow something else more profitably?—No, I would not say that; it is because they are not in touch with the market.

4009. What has developed Caledon?—Development during the last three or four years has been wonderful. It has simply been due to railways. You passed a Bill last session extending the railway in the direction of Bredasdorp, and next year you will see a still further development.

4010. As we have made a railway to Bredasdorp, have any new wheat lands followed that railway?—Yes.

4011. As railway extension grows there will be an extension of wheat land in the Union, that is your opinion?—Yes.

4012. In the area you have been speaking of, that is the North-West district, the cultivation of wheat would be entirely dependent on the rainfall?—No, we do not get much rain there. We depend on the rivers.

4013. Well, that also means rainfall?—I thought you meant in the district. We depend on rainfall in our cereal districts in the Western Province where we have no rivers.

4014. In the Western Province, where they have no regular rainfall in the winter, you can depend on the crop?—Yes.

4015. But in the North-West district you cannot depend on a regular rainfall?—No.

4016. You must cultivate by means of irrigation?—Yes.

4017. You build a dam for water which has fallen higher up the river?—Yes.

4018. Then if there is no rainfall in one year you cannot grow wheat?—No.

4019. So it would be a very precarious thing for a settler to go there and take up land for wheat-growing if he could not depend on a regular rainfall?—He must not count on the rainfall, in that district it cannot be depended on, it is sometimes as low as 5 inches, but the rivers come down; in the case of the Zak River it comes down right away from Prince Albert, Beaufort, and Frazerburg. There is a catchment area about as large as the whole of Scotland. All that water gets into the Zak River and down it comes. You tap this water, which in the past has been allowed to lose itself. These people would have to dam the rivers as they come down. In this country our company have made over 50 miles of dams already, and these men would have to do it on a small scale; I took that into account when I gave the amount of capital necessary. The cost would be small; they would make these dams of mud and earth.

4020. Has it not been known in this district that for two or three years at a time no rain has fallen at all?—Not for two or three years. The river has failed to come down, so far as we can gather, about three times in twenty years, but the ground is very rich; the rivers have been bringing down the rich soil for centuries. These people would not require any fertilisers and one good crop would perhaps tide them over one bad year at least.

4021. It is not very desirable for settlers to go there and wait until they get that good crop?—They would not have to wait more than one year.

4022. You believe that that area itself will supply a large proportion of our requirements in wheat when the railway line has been extended into the district and from that source and other sources we shall be able to feed ourselves ultimately?—Yes.

4023. And be able to export?—No, I do not expect that, because of the limited amount of land in the country which is suitable for wheat-growing.

4024. **(Sir Alfred Bateman.)** Those bushels that you refer to are 60 lbs. I suppose?—Yes.

4025. Is that about the natural weight of your wheat?—No, ours exceeds that.

4026. By how much?—I should think down there in the North West we might safely say anything between 65 and 70 lbs. to the bushel.

4027. As regards the yield, we are informed that in Australia it is from 9 to 20 bushels per acre. In your country I suppose it is more?—I have taken an average which is in excess of any wheat land about here, which I do not think would give more than 10 bushels per acre in, say, the Koeberg and Malmesbury district, but at the Zak I have taken the moderate figure of 17 bushels to the acre.

4028. That is very rich soil?—Yes. I might explain that some of the stools of the wheat grown down there contain as many as over 200 shoots. We cannot trace anything like that in the world.

4029. But 17 is not large?—No; sometimes it is as much as 30.

4030. We can grow that in the Old Country?—Yes, but that is with your fertilisers and heavy rain-fall.

4031. Can you grow wheat every year on this soil without the fertilisers?—Yes.

4032. You have a very cheap rate for carrying wheat on your railways?—Yes.

4033. I see it is only 19*s.* for 2,000 lbs. for a distance of about 500 miles?—Yes.

4034. That is about one-third or less than what the railways charge on imported grain?—Yes, about that.

4035. That is a very valuable help?—Yes, and that goes to the farmer, not to the consumer.

4036. How far from the railway can you grow wheat as a rule?—I should not like to grow it beyond 20 or 30 miles.

4037. And you say you give about 19*s.* for 200 lbs., that is about 5*s.* 6*d.* a bushel?—Yes.

4038. And you say the demand is increasing and that the coloured races are inclined to eat more wheat?—Yes, it is slowly increasing irrespective of the increase in the white population—that is not increasing to the extent that we would like to see—but the native is acquiring a taste for bread. I think the same thing is happening in Japan, where the people are giving up rice to a certain extent.

4039. But if wheat is dear, I suppose he goes back to his native mealies?—Yes.

4040. **(Mr. Campbell.)** I take it from your evidence that it is the rainfall that limits the wheat area; the quality of the land is good enough but the absence of rain is the limiting factor?—Not merely that; there are certain lands which are good for wheat and certain other lands that would be far better for, say, vines, but, generally speaking, I think you may say it is the uncertainty of the rainfall.

4041. There is a large area of land that would be suitable for wheat-growing if the rainfall were sufficient?—Yes.

4042. What would you say would be the average cost of growing a bushel of wheat. What would be the price below which wheat cannot be grown here at a profit?—I have never found a farmer yet, although I have urged upon dozens of them the importance of it, who would keep proper accounts. Of the money he puts into the ground and the crops which he produces he does not know, but he will tell you that unless he can get 16*s.* or 17*s.* a bag of 200 lbs., which is about 5*s.* a bushel, it does not pay him; he says he needs that amount to bring him back his outlay, but he does not keep accounts. We are doing it in a proper manner at the Zak River and we calculate that wheat there will not cost us more than, say, about 1*s.* 6*d.* per bushel.

4043. But you would not pay anything like that price for wheat in South Africa, would you. The average price of wheat would not be more than 4*s.* a bushel, would it?—6*s.* would be an extreme price; I think the average would be about 5*s.* to 5*s.* 6*d.*

4044. What is the average price of wheat in South Africa during the last three or four years?—I should say, taking the last three years, it would not be less than 5*s.* 6*d.* or 5*s.* 9*d.*

4045. What is the duty on wheat in South Africa?—1*s.* per 100 lbs.

4046. What would be the average price you would pay for this land which you will irrigate for wheat-growing; I think you told us that the average return of that land would be about 15 bushels?—It would be rather more than 15 bushels, but I am taking a very moderate average on good and bad land about 17 bushels.

4047. How much would it cost?—Between 3*l.* and 4*l.* a morgen.

4048. And for the construction of irrigation works how much?—I should have to separate the small farmer and the big man who wants to go in for it extensively. The big man would go in for earthworks and block dams which would, of course, cost him more, but the small man would be satisfied with earthen dams for his small plot, which would not be very expensive; I should think perhaps 1*l.* or 30*s* per acre.

4049. Would you say that 4*l.* an acre with the irrigation works would be the average price of land that would grow 17 bushels?—Yes, about that.

4050. Is there any room for the extension of that irrigation business?—No, I do not think that there is, on account of the water coming down in limited supplies. If it comes down about 60 days in the year that is considered good.

4051. In reply to the Chairman I think you said that the average consumption of wheat in South Africa was 12 million bushels a year. The consumption of wheat, I suppose, is now restricted to the white population?—The white and coloured population as apart from the raw native.

4052. That would be about half the total population of South Africa using the wheat?—No, hardly that.

4053. Is there any evidence of a change on the part of the natives from maize to wheat?—Yes, when the native comes down to the port or works on the farms about here he gets a taste for bread and he goes off his mealie porridge.

4054. That change is likely to increase?—I think so.

4055. So the future consumption of South Africa will be considerably more?—The great bulk of our natives are in the Transkei and other districts and you must remember that they still probably continue their mealie-growing and they are not able to grow wheat very well. It would only be those natives who come to the towns.

4056. Does the native prefer wheat foods if he can get them in preference to mealies?—Yes, once he acquires the taste.

4057. Do you fix a wheat standard for buying wheat?—No, it is according to the sample, there is so much variation.

4058. I understood you to say that the average weight of wheat was 65 to 70 lbs. per bushel?—Yes, on the Great Fish and Zak rivers.

4059. The average would be 67½?—Yes.

4060. You deal very largely with Australia for wheat?—Yes.

4061. Have you anything to say to the Commission or any comments to make on any difficulties that occur in connection with the trade?—I was going to ask permission to make some remarks on this subject. We have to import wheat and flour very considerably from Australia; Canada supplies a fair quantity, while the imports from South America have fallen off a good deal; New Zealand used to send a share but owing to various causes not now. A very grave complaint has been made by the South African importers of wheat as to the serious shortages in the consignments delivered from Australia, the instances being rare indeed that the delivery and invoice weights approach one another. The certificates both as to quantity and quality apparently afford but little protection to the South African miller, who is thus seriously handicapped in his competition against imported flour. Australia is the worst offender in this respect. Canada is rather better, while New Zealand weights may be relied upon. The attention of the Australian authorities ought to be drawn to this subject, because the present methods occasion much loss to some of the customers of the Commonwealth and lend themselves to considerable improvement.

4062. What steps did you take to remedy that?—We try to get a guarantee, but sometimes we cannot get that. We take the weights as delivered here and I may say that the grain is very carefully weighed at the docks, where they have splendid scales. I will just give you an instance. Last December we got one vessel and the value of the wheat short was no less than 482*l.*; we tried to get it back, or rather, we are trying to get it back but do not think we will. There is one vessel in the dock now, I do not know how it will turn out, she has brought us 81,000 bags; there is always a tremendous shortage which we have to pay for; we send our letters of credit but we cannot enter into a law suit over there; we sometimes just pocket the loss. There was another case about eighteen months or two years ago where the loss was over 1,000*l.* The matter was arbitrated on in London and a man was sent from Australia to look into the Harbour Board methods and to look into our books. We were successful in that action and we got the whole of that amount. There is scarcely a shipment that does not leave us with a tremendous shortage.

4063. Is there anything you can suggest to remedy this trouble?—Yes, I am hoping that this Commission will be able to see its way to move the Commonwealth Government to take this matter up.

4064. From what part of Australia does the wheat usually come?—Pretty well all round. We do not get so much from New South Wales because the quality is not so good.

4065. There is this fact to bear in mind, that wheat gains on a long sea voyage; is it the custom, do you think, to make allowance for this? Is there any general rule?—Yes. I think it is done this way, I think they average; I think they just take occasional bags and weigh them, but here at the Harbour Board they weigh every bag; of course, we have to pay them for that, and that is an additional loss. But the Australian shipper gets his average—I am not assuming this, because it came out in a Parliamentary Commission—I think that the shipper gets his average weight, and then he assumes that on the voyage the wheat will absorb a certain percentage of moisture and he claps that on his invoice.

4066. **(Mr. Campbell.)** I suppose it is borne in mind that he did not clap anything on to the buying price when he bought the wheat from the farmer in the original case?—Very likely.

4067. Do you suggest that the net weight at the port of shipment should be the net weight checked by the Commonwealth?—Yes, and the man buying it should pay for what he gets.

4068. He takes the benefit that comes from the moisture absorbed on the voyage?—Yes. Climatic influences also are at work in this connection. If the wheat were shipped in a very dry state in Australia it would absorb more moisture than if it were shipped in a damp condition.

4069. **(Chairman.)** Would handling the grain in bulk by elevators avoid that difficulty?—Yes, because it would be weighed by the Government scales under Government inspection and we would simply pay 20*s.* for the sovereign's worth of grain.

4070. Would that be the preferable system in your judgment?—Yes.

4071. Is there any idea of introducing it here?—No, because we do not export, but it has been considered in connection with the export of maize. It is proposed to have elevators and if they did that system of weighing would come into use.

4072. So far as your arrangements with Australia are concerned the adoption of bulk handling would avoid this inconvenience?—Yes.

4073. What ships does the grain come in, in liners or tramps?—In liners as well as tramps, but we prefer tramps because we prefer whole cargoes. With the regular liners their time is limited and they have to bundle the stuff in and out. There is always a loss because the Australian bags are not of the best quality and they break and a good deal of the wheat falls into the hold amongst other cargo and we do not get it.

4074. What is the ruling rate of freight on wheat from Australia to this country?—Roughly, in the neighbourhood of 27*s.* 6*d.* The "Clan MacWilliam," now in dock, was chartered at 26*s.* 6*d.*, 27*s.* 6*d.*, and 28*s.* 9*d.* for three ports.

4075. Do you know what the rate would be on a similar cargo from Australia to England?—No, but probably about the same.

4076. I suppose England would be about the same rate, say 27*s.*?—I could not say exactly.

4077. You cannot give us a general comparison of the freights from Australia to the Cape and the freights from Australia to England?—There is very little difference. There is the advantage to vessels in England in getting coal and in the matter of cargo. Here we can now give them fairly cheap coal but we cannot give them cargo.

4078. As a matter of fact, what do tramps do when they come here with grain? Do they take coal to India and then take wheat home?—Yes, that is often so. There is a vessel now in port, she is going to India from here *viâ* Natal and will very probably take coal there.

4079. Is any large amount of goods sent from the Cape to Australia?—No, the balance of trade is all in favour of Australia.

Oudtshoorn, Tuesday, 10th March 1914.

Mr. John Leroux, Ostrich Farmer, of the farm "Baakenskraal."

The Commission visited Mr. Leroux's farm, and witness made the following statement:—

I am an ostrich farmer, and I have 500 birds on this farm. They are fed mainly on lucerne. I run about five or six to the morgen. It is true feathers have dropped in price, but as long as the farmer in the district can get 3*l.* per bird he can keep them profitably. At present we get 3*l.* 15*s.*, 4*l.*, and sometimes 5*l.* I should say the average for some years past has been 8*l.* —those who kept a good stock. The price dropped in June last year. I think it will be some time before feathers recover to their former price. It is just a matter of fashion. There were nearly 120,000 ostriches in the district last census The district is, roughly, 60 miles by 30. The stock is increasing. For a good pair of breeding birds the price is anything from 100*l.* or 150*l.* upwards. There are some birds that could not be bought for 1,000*l.* As regards the length of time an ostrich remains in profit. I have an old cock now about 30 years old and he is still all right. We have no data regarding the age to which they live, but we know of birds 30 and 35 years of age. We are now only starting to collect data. I do not think we have any of the original wild birds now; ours are all domesticated. I think it is the climate and the soil that make this district so suitable for ostriches. The farms differ as regards soil. Most of my soil is alluvial deposit from the river. The soil is soft and dry. Consequently, the feathers do not get injured or soiled to such an extent as they would on hard, gritty soil, or where water accumulates. We do not get much rain here, only about 10 inches. If you have too much rain it is bad for the feathers, but you require rain in the mountains so as to bring the rivers down for irrigation. The price of feathers varies a great deal. It is anything up to 30*l.* a lb. It is largely a matter of fashion and taste. As regards breeding, we generally put two hens to one cock, and the hens lay up to 24 eggs. Regarding the health of the birds in captivity, it is seldom that a full-grown ostrich dies off. The adult birds are quite hardy, but there is a high percentage of losses among the chickens. The ostriches suffer from parasites, chiefly worms. We only expect to rear one-third of the chicks that are hatched. I have hatched 22 chicks from 22 eggs, but I was very lucky to get that result. It was a good strain. We can have as many as four hatchings in a year, but usually we get two or three.

Regarding the value of my land, it used to sell for 300*l.*; it is difficult to say now.

I have also some 20 head of Friesland dairy cattle grazing on the farm. They are kept chiefly for the butter, which I can sell at 1*s.* 3*d.* and 1*s.* 6*d.* a pound.

Oudtshoorn, Wednesday, 11th March 1914.

Mr. E. T. L. Edmeades, representing the Oudtshoorn Farmers' and Fruit Growers' Association, called and examined.

4080. **(Sir Rider Haggard.)** We understand that you wish to give certain evidence on the subject of ostriches and tobacco?—Yes. I wish to put in a Memorandum, prepared for the information of the Dominions Royal Commission, framed by a committee consisting of Messrs. J. Matare, A. E. Martin, and F. Muller Rex representing the Oudtshoorn Chamber of Commerce, myself, A. H. Mulder, and C. J. Serfonteyn, representing the Oudtshoorn Farmers' and Fruit Growers' Association, and Councillors A. Jacobsohn (Mayor), K. Schenck, and R. F. Chambers, representing the Town Council of Oudtshoorn.

Memorandum put in as follows:—

On the 21st January 1914, Mr. Frank Robb, who had been appointed by the Government of the Union to organise the tour in South Africa of the Dominions Royal Commission, had an interview with the Oudtshoorn Chamber of Commerce, in which he explained the constitution and objects of the Commission, and suggested that a Memorandum should be drawn up and evidence offered when the Commission arrived here on the 10th or 11th March. The Chamber of Commerce invited co-operation and the above joint committee resulted.

This committee decided to confine their attention to the two largest industries of the district, namely, ostrich feathers and tobacco, but at the same time wish to express the opinion that the Commission should obtain from other sources information and statistics with regard to dried fruits, wine and brandy, buchu, and bush tea. All these are produced here, but it is admitted that there are other districts in the Cape Province where they form a more important asset than in the district of Oudtshoorn. A very large quantity of lucerne is also produced in this district, but as the whole of the output is consumed locally or within the Union the committee merely mentions it, because it is owing to the exceptional advantages we possess in the production of the fodder plant that we hold the position of being the chief ostrich feather-producing district in the world. The census returns of 1911 gave the production of lucerne hay in the Union of South Africa as 122,919 tons, and of this amount Oudtshoorn district produced 19,199 tons, or nearly one-sixth. These figures naturally do not include the vast amount of lucerne consumed on the lands and that stored for winter use.

Ostrich Feathers.—The following table will show the great strides the ostrich feather industry has made in this country, and the important position it now holds in our commercial assets:—

Year.	Export.	Value.
	lbs.	£
1870	28,785	91,229
1880	163,065	883,632
1890	212,276	517,009
1900	412,832	879,751
1905	471,024	1,081,187
1907	598,358	1,814,232
1908	637,815	1,738,392
1909	788,262	2,091,280
1910	741,078	2,272,846
1911	826,992	2,253,140
1912	999,704	2,609,638

The returns for 1913 are not yet available.

The increase in the number of domesticated birds may be noted as follows:—In 1865 there were only 80 in the Cape Colony. In 1875 there were 32,247, while the census of 1904 showed 360,830 domesticated ostriches in the whole Union, of which 79,670 were in the Oudtshoorn district, and the census of 1911 showed 746,736 birds, of which 110,578 were in the Oudtshoorn district. These figures show that Oudtshoorn justly claims to be the premier producing district in the country.

The domestic ostrich of to-day produces very far superior plumes than were obtained from the wild bird half a century ago. The reasons for this are not far to seek. The bird is by no means fastidious as regards the nature of its food, but the character of its plumage

is highly responsive. Instead of simply letting their feathered stock pick up a precarious existence on the veld, the enlightened farmers now cultivate as much land as can be brought under irrigation by gravitation and pumping, put it under lucerne and divide it into paddocks for the grazing of their birds, giving them at intervals "hard food" in the shape of maize and mealies, and also perhaps, if they have the means of so doing, giving them a spell of veld feeding. Large areas of fertile land are still awaiting cultivation, it is only a question of the future conservation of water. In England lately, an agitation arose in which South African ostrich farmers were charged with cruelty to the birds in the plucking of the feathers. With even more justice, cruelty might be urged against the sheep farmer in the shearing of his sheep. The fact is that the South African farmer knows that the ostrich is the goose that lays the golden eggs, and the bird is consequently more pampered than perhaps any domesticated animal.

Besides providing for careful feeding, the farmer has also applied himself to careful selective breeding. In our district, in natural response to the lucrativeness of feather production, the value of fertile irrigable lands has risen enormously, so much as 200*l.* per acre being not uncommon, and consequently the farmer finds that only birds of superior strain are remunerative.

Although undoubtedly ostrich-farming under favourable circumstances is a very lucrative business, the farmer of to-day has an uphill fight in coping with numerous diseases that have followed the domestication and breeding from finely selected stock. Undoubtedly the birds have lost that stamina for which they were so noted in the wild state, and being confined in large numbers in limited spaces, instead of roaming over the free veld, must tend to the fouling of the land and the propagation of bacterial germs. Domestic ostriches are particularly liable to a number of diseases, a large percentage being parasitic in their nature, and they take a heavy death toll. We estimate that only little over a third of the birds hatched reach maturity. Although no reliable data is available as to the longevity of ostriches, we know of instances in our district where birds of 30 and 35 years of age are still producing good feathers and still breeding. Birds through their reckless stupidity are very prone to meet with fatal accidents. Then there are plagues of caterpillars and eel-worm which attack the lucerne, and the parasitic fodder which is equally destructive, not to mention seasons of drought when expensive mealie feeding has frequently to be resorted to.

What Oudtshoorn produces.—Oudtshoorn feathers are mostly shipped over-sea through Mossel Bay. A quantity goes *viâ* Port Elizabeth and to other parts of the Union, and this quantity is about equivalent to the quantity shipped by neighbouring districts through Mossel Bay, so that the shipping returns at Mossel Bay practically show the quantity and declared value of feathers grown in Oudtshoorn. The following return has been supplied to us by the Mossel Bay Chamber of Commerce.

Year.	Weight.	Value.
	Lbs.	£
1911 - - - -	362,007	981,387
1912 - - - -	455,744	1,100,843
1913 - - - -	535,952	1,248,108

Markets.—The principal ostrich feather market is, of course, London, but it is not exclusively so. The following table shows the quantities and values exported to different countries.

	1907.		1908.		1909.		1910.		1911.	
	Lbs.	£	Lbs.	£	Lbs.	£	Lbs.	£	Lbs.	£
United Kingdom -	574,331	1,728,370	599,327	1,531,067	715,691	1,724,529	678,165	1,931,573	721,610	1,850,195
Other British Possessions.	1,039	4,698	1,133	4,115	1,999	9,321	1,724	8,335	3,896	21,697
France - - -	55	220	49	633	609	4,331	1,580	20,503	1,888	8,042
Germany - - -	8,892	10,525	7,370	5,189	10,867	15,201	9,717	22,289	20,870	42,639
United States - -	14,027	70,377	29,930	197,266	58,941	337,813	46,347	288,806	77,869	327,899
Other Countries -	14	45	6	122	155	85	515	1,338	859	2,668
Totals - -	598,358	1,814,232	637,815	1,738,392	788,262	2,091,280	741,078	2,272,846	826,992	2,253,140

The detailed figures for 1912 and 1913 are not yet available, but the total export for 1912 was 999,704 lbs. valued at 2,609,638*l.*

The Committee would be pleased to obtain an expression of opinion from the Commission as to whether anything can be done by the exhibition of feathers, or by other advertisement in the cities of the Dominions with a view to advertising the product of this district, considering that the danger of overproduction so frequently asserted should at least receive some forethought, and every possible endeavour made to extend the markets for the consumption of the supply of feathers.

The following table shows the total quantity of feathers offered for sale at public auctions on the London market during the past seven years, up to the end of 1912 (last year's figures not yet being available) : the total prices realised ; and the average price per lb. for each of the given years :—

Years.	Quantities.	Total Prices realised.	Average per lb.
	Lbs.	£	£ s. d.
1906 - - -	495,400	1,054,000	2 2 6½
1907 - - -	493,164	1,118,000	2 5 4
1908 - - -	581,000	1,225,000	2 2 2
1909 - - -	635,413	1,430,000	2 5 0
1910 - - -	663,000	1,679,000	2 10 8
1911 - - -	666,400	1,465,000	2 4 0
1912 - - -	690,000	1,625,000	2 7 1

There are, of course, considerable fluctuations in the market, according to the demands and changes of fashions, and these affect both buyers and producers on this side. At the present time the market is suffering a severe decline.

The Commission is asked to take note that this district has been singularly favoured by nature, both as regards climatic conditions and the great fertility of its soil, which allows of luxuriant lucerne growing wherever the surface can be irrigated, for the breeding of ostriches of the finest strains and the production of feathers of excellent quality.

Tobacco.—The subject of tobacco is approached with an appreciation of the fact that we are on entirely different ground from that covered in our remarks on ostrich feathers. There has practically been no oversea export of tobacco from South Africa up to the present time, and even were this not so there are no recognised public auction sales of the product in the United Kingdom, the practice being for tobacco to be sold by brokers in private treaty. Experiments have been made on a small scale but the results have not been encouraging. Nevertheless, considering how enormously the production of tobacco in the Union could be increased, it would be folly not to anticipate future more successful developments.

Confining ourselves for the present to the district of Oudtshoorn, we find that the census enumerators table in 1891, 34,186 lbs. ; in 1904, 1,214,324 lbs. ; and

in 1911, 1,085,928 lbs. These figures must be taken to represent what was in stock with the tobacco farmers and the tobacco merchants in the district on the dates upon which the census was taken, and do not, in our opinion, represent the annual output. We consider that the present annual output could be set down at 2,500,000 lbs., in spite of the fact that lucerne has to a considerable extent usurped tobacco lands.

The census of 1911 set down the total tobacco production of the Union at 14,961,199 lbs., Oudtshoorn being far away the largest producing district in the Cape Province, which showed a total of 3,767,179 lbs. Transvaal Province totalled 7,701,774 lbs.; Natal, 2,685,037 lbs.; and Orange Free State, 807,209 lbs. The largest producing district in the Transvaal was Rustenberg with 4,241,395 lbs., and the next Krugersdorp with 1,039,505 lbs.

There were 9,149 morgen of ground in the Union under tobacco cultivation (a morgen is roughly equal to 2 acres), the distribution being: Transvaal, 5,431 morgen; Cape, 2,084 morgen; Orange Free State, 1,132 morgen; and Natal, 502 morgen. This district had 584 morgen under such cultivation. Rustenberg, 3,152 morgen; and Krugersdorp 609 morgen.

Imports and Exports.—The imports of tobacco during 1912 were:—Cigars, 134,962 lbs., valued at 54,479*l.*; and cigarettes, 246,685 lbs., valued at 76,414*l.*

The exports were:—48,051 lbs. of unmanufactured, and 92,978 lbs. of manufactured goods, besides cigars and cigarettes, bringing up the total exported tobacco to 153,475 lbs, valued at 12,361*l.* The South African cigarette is a product which has only during late years become an article of marketable importance.

Experiments with Turkish tobacco have been made in the Cape, Stellenbosch, Paarl, and Tulbagh districts, but we are not prepared with any evidence on this branch of the subject. The locally-grown tobacco is used for fillers of cigars, cut (for pipe smoking), and roll tobacco, the latter being a staple article in the tobacco trade all over South Africa, and especially on the mines, where, perhaps, an even greater quantity is used for chewing than for smoking purposes.

A large percentage of the tobacco grown is used in the form of "dip" for the treatment of "scab" in sheep and goats. The essential ingredient in tobacco dip is the nicotine, the Department of Agriculture holding that to be thoroughly efficient the dip should contain not less than 8 per cent. nicotine. Oudtshoorn tobacco, or rather that grown in some parts of the district, contains a higher percentage of nicotine than that grown in any other part of the Union, the analysis over a large number of samples showing an average of about 4 per cent. nicotine. Dr. P. Daniel Hahn, of the Chemical and Metallurgical Department of the South African College, says: "Such tobacco is simply "too strong for smoking, and also unfit to be used "for making snuff, mouth-snuff, or roll-tobacco. One "cannot help thinking that nature has evidently "destined such tobacco to be used for producing a "most effective sheep dip or insecticide."

A considerable quantity of nicotine for sheep dip is imported from Austria and elsewhere, and the establishment of manufactories in the Union would obviate this, keep the money in the country, and help the labour market. We understand that it is contemplated to establish such a factory as we have alluded to here in Oudtshoorn. The aim of this factory will be not only to supply the whole of the Union with tobacco dip, but also to export nicotine to other countries where there is a keen demand for the commodity, not only as a sheep dip but for the spraying of vines and fruit trees, nicotine being one of the most effective insecticides known.

The committee offers to the Commission the oral evidence on ostrich feathers of Mr. E. T. L. Edmeades, one of our leading ostrich farmers, and Mr. A. E. Martin, of the firm of Sciama & Co., one of the largest local buyers, a gentleman of eighteen years' local experience; and on tobacco, that of Mr. R. F. Chambers, who is both a grower and manufacturer, and Mr. Karl Schenck, formerly the Cape Government tobacco expert, a large purchaser and manufacturer.

The committee will also have much pleasure in conducting the members of the Commission over ostrich and tobacco farms and through feather rooms and tobacco factories.

4081. **(Sir Rider Haggard.)** Will you please tell us what is your experience about ostriches. Are you an ostrich farmer yourself?—Yes, close on thirty years.

4082. We have read with great interest this very excellent memorandum which has been furnished to us and I think the best thing I can do is just to go through the main points. It seems from what you say here that lucerne is one of the great ostrich foods?—Yes, it is the chief food.

4083. You grow a large proportion of lucerne in this district?—We grow more lucerne in this district than in any other part of South Africa.

4084. How long do you keep your lucerne plant?—The plant will stand for a hundred years, it has been known to do so in other countries. I have a couple of fields which have been down twenty-five years, but it is not advisable to keep it for so long a time because other plants, such as Bermuda grass, known as quick grass, grow up, so that it is not advisable to let it grow longer than six, eight or ten years without ploughing.

4085. You mean that quick grass ultimately kills it?—Yes, but if you continually crop lucerne I think it would overmaster the quick grass, but we graze in this district, almost all our lands are pastoral lands, we only cut the surplus, we make lucerne hay to store for winter food and when we have a surplus we sell it, but most of the stuff grown in this district is consumed in Oudtshoorn.

4086. What does your lucerne hay sell for?—From 3*s.* 6*d.* to 4*s.* per 100 lbs.

4087. Is the soil deep?—Yes. Most of the valleys here are suitable for lucerne, because they contain the quantity of lime and potash which is necessary. Taking the soil along the Oliphants River Valley you have more than 20 feet of alluvial soil, the accumulation of millions of years washed from the Karroo.

4088. How would you describe your soil, is it a mixed soil?—Yes, decomposed stone. I do not think there is much granite in it.

4089. I suppose it is largely composed of boggeveld from the Karroo. Do you require to manure it?—We rarely manure it in this district except for tobacco.

4090. Is your land very valuable?—Very valuable indeed, and 200*l.* an acre or 400*l.* a morgen is very often paid for it, that is land along the river banks.

4091. Is that suitable for ostriches?—Well the richer lands on the river banks are all suitable. The land out on the flats is of a more shallow nature and would not command that price.

4092. Are those figures being maintained?—Yes, in fact there is no land on the market and there has not been any for a long time, every bit of land is snapped up.

4093. And there are many and eager buyers?—Yes.

4094. That is because of the value of ostrich farming as an industry?—Yes.

4095. Now about feathers. It appears that there has been a continuous growth in the weight of feathers exported, which in 1912 amounted to 999,704 lbs. Has that growth been maintained in 1913?—Yes, and more so. I think there has been a bigger growth and that we are gradually increasing.

4096. But there is a slump in the price to-day, is there not?—Yes, the last three markets in London have not been so good.

4097. What percentage of slump?—I should say now, judging by the market, that the price has gone down fully 50 per cent.

4098. Has that ever happened before in the history of the ostrich feather industry?—Yes, two or three times before, in 1885 and 1886 it was bad, and I think also in 1890 and 1896.

4099. And, therefore, you are not inclined perhaps to attach too much importance to it?—No. Of course, we do attach a certain amount of importance to it because we are producing more feathers, but on the other hand merchants are trying to find more markets. You will see a gradual rise in the number of birds and

the output, and still the stuff maintained its price in 1912, which was higher than was obtained years ago.

4100. Did it maintain that price?—Yes up to within the last three markets. I hope that this slump is only temporary. It may pass over in six months or within a year.

4101. But I presume that this increase of output is likely to continue?—Yes, so long as the ostrich feathers remain so remunerative and retain their price. It is the natural tendency for farmers to increase the number of birds and consequently the output.

4102. Is there no practical limit?—Yes, it depends on fickle fashion, there must be a limit some time or other.

4103. I think this might be a convenient place to ask you what is the limit of payability. At what return per bird does ostrich-growing cease to be payable?—I maintain that ostrich farming pays better at 1*l.* per plucking than wheat-growing in this district would pay.

4104. Then if it failed to return 1*l.* per plucking it would not pay?—No. I think not, as land is too high.

4105. You think it would still pay the farmer better than wheat-growing?—Yes, provided it does not fall below 1*l.* per plucking.

4106. The number of your birds is increasing very largely?—Yes.

4107. I see you give the total as 110,578 in 1911, and since then has there been a further increase?—There may have been, but I do not think very materially, because we have come to the limit of our land, the limit under cultivation at present. There is a large quantity of land waiting irrigation, but we are waiting for the conservation of the water. We have practically come to the extent of our irrigable lands in this district at present unless we go in for large storage reservoirs.

4108. Most of the land in this district upon which ostriches are reared is irrigated?—Absolutely.

4109. How many irrigations a year?—That varies. Along the Oliphants River in some parts you can get two cuttings of lucerne with one irrigation; it only takes from four to five weeks to get a crop and you can get two crops in some parts of the Oliphants River. Other parts will want watering for every crop, and in some parts where the land is very shallow as much as two waterings per crop, but taking the average run of land in this district giving four waterings of 4 inches each, it would be ample for the district taken as a whole.

4110. Where does the water come from?—From the mountains surrounding us.

4111. Is it stored?—No, all our farms are irrigated by gravitation and in few instances by pumping. I may tell you that the rainfall in the town itself is approximately 9 inches, but on the mountain tops which feed our rivers the rainfall is anything from 16 inches to 25 inches, and may be as high as 30 inches per annum, and for eight months in the year we have a fairly good supply of water. About four months in the year we are rather dry. Suppose a thunderstorm was passing in the Zwaartberg Mountains, the rivers in that area would flow down and most of the water would be probably absorbed in that area, and unless the flow was large very little would reach the Oliphants River.

4112. But if you irrigate simply by means of furrows it must mean an enormous amount of water running to waste?—Yes, that is just what we have been trying to impress upon the Government for years past, the importance of the conservation of water. Many people unfortunately rather mix up irrigation with conservation of water. Irrigation only follows after conservation. In this district we have done practically everything that we can from natural sources, but what we do want now is large storage works. I may tell you that the Government has surveyed three large dams, the smaller one is being constructed near Calitzdorp at the present time, and of the other two large storage sites one of them is at Tooverwaterspoort and the other is on the Kamnatie River. The one at Tooverwaterspoort could bring 9,000 morgen under cultivation. At the present time the Government is taking readings by means of the gauge weir and examining the deposits of silt and other things. Then the other site on the Kamnatie River when built would contain sufficient water for 7,500 morgen, giving that 7,500 morgen four waterings a year of 4 ins., but these are large works.

4113. Have you estimated the cost?—I think the one could be built for 150,000*l.*

4114. And the other two would probably cost half a million?—I think less.

4115. Do you propose that the Government should do this?—That is an open question. Myself and others think the larger works should be undertaken by the Government.

4116. Now, how do you propose to repay the Government?—By charging for the water which is used by the individual irrigator. This country being under Roman-Dutch law, only that land abutting on rivers is allowed the use of the water, but under the new Irrigation Act, which was passed three years ago, the Government have now the right to take the storm-water or surplus water over and above what the present irrigators are using, and storing that water, and may use it on other than riparian land. Now the Government at present do not feel disposed to undertake these works themselves, they are trying to force it on the people of the country to do it themselves, but where you have complications, such as you have in this district, and where it is not clearly proved in regard to one tributary having its source in the mountain and falling into the main artery, in how far the owners of land on that main artery have a right to participate in the water from one of these tributaries, it is a most difficult question. All these things would have to be inquired into. I think myself that the larger reservoirs should be constructed in this district by the Government. If the Government of the country can build railways and harbours, I do not think there is anything to prevent them from building irrigation works on a large scale, but they do not seem inclined to do so. They want to shift the responsibility on to the people, but where you have such large irrigation works, and where so many conflicting interests are bound up, and where the farmer on the tributary would not care to become joint security for the farmers three or four or five miles down the main artery, I think it is a matter for the Government to take up. Provision has been made in the Irrigation Act for forming water boards. The whole question, however, is one of the most difficult problems in a district like ours, and I am afraid it will not be easy to get the people in this district to be willing to pass mortgage bonds to the Government for the security of the capital.

4117. That is a matter for you to settle with the Government?—Yes.

4118. Am I right in understanding that the present position is this. An enormous amount of water is running to waste which might be conserved?—Yes.

4119. And that all the land which can be brought under irrigation under your present system is already under irrigation?—Practically all.

4120. Therefore the industry is now limited by these conditions?—The Outshoorn District is practically limited by these conditions.

4121. But if some system could be devised by means of which the water could be conserved and stored up in dams, the amount of land which would be irrigable would be largely increased?—Yes.

4122. Could you say to what percentage?—It is difficult to estimate that without surveys, but, as I said, the Tooverwaterspoort scheme would bring 9,000 morgen under irrigation and the Kamnatie River 7,500 morgen.

4123. How many morgen have you now under lucerne in the Oudtshoorn District?—I cannot answer that question without statistics, but there are about 20,000 morgen on the Oliphants River.

4124. Have you anything further to say about the food of the ostrich?—The food of the ostrich in this district consists almost solely of lucerne, and for our breeding birds we feed them on grain, mealies, barley, oats, &c., &c.

4125. Is that their natural food?—No. Their natural food is the ordinary bush and shrub of the veld.

4126. Which do they do best on?—On the lucerne and grain.

4127. I see here in your memorandum you mention that the ostrich farmers like to run the birds on the veld if they can?—Yes, for a change, and to pick up stone and lime, and so on. We also supply them largely with bone.

4128. I gather from what you say that your ostriches are doing well?—Yes.

4129. I observe further that you have a certain amount of disease?—Yes. That is owing to keeping such a large number of birds in a limited space. For the last fifteen or twenty years we have found it more difficult to rear the young birds. We have parasitic diseases such as the ordinary known worm, one in particular which is similar but smaller than the wire worm in sheep. They carry off quite a number of birds. In fact we estimate that only about a third of the birds which are hatched come to maturity. When once the bird is over the eighteen months or two years' stage they are very hardy, and they live to any length of time.

4130. Then it is owing to infantile mortality that you generally suffer?—Yes.

4131. Do you think you will be able to devise means by which this high death-rate can be lessened?—That is one of the things again that the agricultural unions in this country have been repeatedly impressing on the Government, the necessity of putting a man specially on one side to study the diseases of ostriches. We have one man in Grahamstown who has tackled the question in a way, but the loss is very severe, and I do not think they have struck the proper way to cure this mortality in young ostriches.

4132. To what age do these ostriches live?—We have no data on that point. Formerly an ostrich was simply an ostrich, but these last fifteen or twenty years we have bred them by selection so as to be able to obtain the finest strain, the same as with cattle and horses. That has been done to improve the quality of the feather. Years ago we did away with the old ostriches, but now, when we are quite sure that we have good blood in our stock, we keep them as long as they will breed. We know of birds which are capable of being used for breeding purposes up to thirty years of age, and we shall be able to find out in time how long such birds will live.

4133. They have a very long life?—Yes.

4134. You consider that you can produce as good or better feathers in this district as are produced in any other part of the Union?—I am of the opinion that this district produces the best feathers in the world. There are two reasons. In the first place we have the soil, and we have been longer in the business than other people. I do not put it down entirely to the soil, but we have had a long start in this district, and we have devoted a good deal of attention to selection and breeding. The soil and the climate here are all that can be desired. The soil in the Oliphants River Valley is a very soft kind of soil and does not contain that hard grit that some of the red soils contain, and the consequence is that when the feathers come into contact with the soil they are not injured to the same extent as they are in the case of a hard gritty soil. Besides that the drainage in this district is excellent. When water is put on the land it simply sinks away through the soil, and does not lie on the surface very long. Birds are kept away from water as much as possible.

4135. You have a small rainfall here?—Yes. You do not require a big rainfall, especially when feathers are full grown. The rainfall would naturally deteriorate the feathers, and as we only have a rainfall of 9 inches that tends to improve the lustre of the feathers.

4136. So every condition which the ostrich requires is present here?—Yes.

4137. And that has made it so successful?—Yes.

4138. What is your chief market?—London.

4139. I see the average price per lb. of feathers in London is 2*l.* 7*s.* 1*d.*, or was in 1912. Is that mixed?—Yes, that is taking the whole lot for the year in the Union.

4140. But that has been largely decreased in the last few markets?—Yes.

4141. We have heard it said sometimes that this plucking of ostriches is a cruel business. Is that so?—No, that is an absolute fallacy which we have tried to dispel from the minds of people in Europe.

4142. What is the exact process of plucking and how often does it occur?—After the chicken is hatched it takes about nine months before the first feathers are ripe and fit for plucking, or otherwise you clip at seven months and extract quills two months later, thereafter every eight months. The process of plucking is as follows: The bird is caught round the neck by a kind of shepherd's crook; as soon as he is caught one man takes hold of him at the tail, and one at each wing. He is then led into a triangular arrangement and the feathers are then removed, the wing or white feathers being clipped and the rest extracted by hand.

4143. Do you cut the feathers and let the stumps fall out?—No, we only cut the wing feathers, and pull out the stumps two months later when they are ripe. We use a pair of pliers to draw them. It is practically painless just the same as cutting your nails. The reason why we cut the white or wing feathers two or three months before they are ripe is to preserve the points. If you allowed the feather to remain on the bird for eight months, by the time those eight months were over the points would be completely spoiled.

4144. Do you take any steps to advertise your business?—No, not the farmers.

4145. Are you contemplating any such step?—There is some talk of doing it. As a matter of fact I had a circular sent to me the other day. To my mind it is questionable whether it is the farmer's duty to advertise his feathers seeing that the sale of them is spread over such a large area. You would find so much difficulty in combining to pay the expenses of advertising. We take it to be a part of the duty of the large manufacturer and buyers on the other side to advertise the feathers. They buy and manufacture the feathers, and as business men they have agents and travellers in all parts of the world, and therefore, for their own sakes, they would naturally advertise if they considered it necessary. They are the right people to advertise. Nevertheless it is a matter to be considered whether it would be advisable for growers to take up this question or leave it in the hands of the manufacturer.

4146. Have you any co-operative association for selling the feathers?—No.

4147. What happens with the feathers? Do you send them to the market yourself?—No. I myself do not send them to the London market. Feathers are sold here by different systems. One is on the basis of tenders. That is you get a dozen or more buyers to come together and they each put in a tender in the same way as sugar is sold in Natal, and these tenders are opened and the highest tenderer gets the parcel. On the other hand, some men have special buyers to whom they sell all their feathers, and, again, others sell feathers as a speculative business, receiving so much per bird.

4148. Are you satisfied with your present system?—We have been satisfied. There have been one or two objections, but seeing that some of the largest buyers have closed down for the present there is now a move on foot to form a society to ship our own feathers direct.

4149. Do you contemplate co-operative action?—Yes.

4150. Is there any other point you desire to lay before us?—No, unless there is anything you wish to ask.

4151. **(Sir Jan Langerman.)** Talking about the value of land, which you say has been sold at 400*l.* a morgen, what would be the average value of your irrigable land?—It is so difficult to say at present. There is no land on the market. If there was a great slump we do not know what would happen, but at present there is no land on offer whatever. Any small pieces of land which have been put on the market have

been snapped up by the people owning adjoining properties. The farmers who have money, instead of putting it into investments or mortgages prefer to put it into land, and so they do not care what they pay—within reason.

4152. You say land has been bought at 400*l.* a morgen; assuming this to be the average value of the land, and eliminating ostriches, would the land be worth that figure for tobacco or fruit?—Yes, for tobacco certainly. In fact, leaf tobacco at from 6*d.* to 8*d.* per lb. would be almost as remunerative as ostriches. I have made as much as 135*l.* out of a morgen of tobacco, including what is known as the "na-twak" or second crop.

4153. There is no question, then, that if ostriches should fail you could make a good living out of tobacco and fruit?—Certainly. You could grow fruit for export. Our grapes, I believe, are superior to anything in the Cape Province. I do not think there need be any anxiety. We have the lucerne to feed the cattle and keep sheep. We could keep tens of thousands of sheep with small quantities of lucerne. Even if ostriches became absolutely unsaleable, I believe that the best part of this district would still be good.

4154. Taking it that all the land you could irrigate yourselves is already taken up, at what price could the Government buy land to-day which cannot be brought into cultivation by natural sources of water supply, but which might be brought into cultivation by the Government if they went in for a large settlement scheme?—I may say they have tried it several times, but it has never been carried out, nor can it ever be. The idea of the Government in regard to future schemes, I think, is not to buy the land, but to charge the people for the water. I do not think there would be any chance of buying up the land, because they would find the people unwilling to sell.

4155. There is no opportunity then here for newcomers to secure small holdings at a reasonable figure?—No, the land is too expensive. In fact, my opinion is that irrigable land in this district would be far too expensive for the Government to place immigrants upon it. There are so many more suitable places along the coastal belt where the rainfall is ample without irrigation.

4156. You have a close corporation among yourselves?—Yes, and there is no room.

4157. You said that the Government should undertake large schemes; do you know what the people in Robertson have done lately?—Yes.

4158. What have they done?—They have combined and made the Robertson Canal, which, after all, is what we have done here for years past. They have now undertaken the Breede River scheme, and there the Government has offered to assist by building a reservoir.

4158A. They have guaranteed them something like 400,000*l.*?—I believe so. The difficulty here is the existing rights. Wherever you start new irrigation works you are able to do it. But here you have the existing rights which you would find it difficult to upset. Our people are very conservative, and they know what they have. The existing rights are the difficulty, which you have not to contend with in Robertson. We stand unique as a district.

4159. **(Mr. Garnett.)** How many birds do you yourself have?—Just over 1,000.

4160. On how many acres are those run?—I reckon about six birds to a morgen—or three to the acre. But when I say six to the morgen I should point out that for every 100 birds you keep you can also keep ten or twelve head of cattle, and a couple of horses to graze on the stubble and grasses in the fields. The birds only take the leaves and the tender tops, so you have an enormous quantity of food left for stock, and also sufficient to make hay for the winter feeding of the 100 birds.

4161. How many cuttings of lucerne can you get?—In this district our water supply is erratic, but you can from one field have five cuttings. Your first cutting in October would be rather mixed with grasses, but after that you could have a cutting every six weeks. Some years ago the Government wanted information on the subject, and I irrigated a field of seven morgen and put on it 490,000 gallons of water per morgen. I irrigated on the 1st November, and on the 30th November I cropped it, and after two weeks, when the lucerne was dry and ready for storage, I got 35,000 lbs., that is, about 18 tons of 2,000 lbs., or 5,000 lbs. per morgen. That is 2½ tons to the morgen.

4162. What is the average price for good ostriches?—You can buy a full-grown ostrich for 1*l.*, and there are birds you could not buy at 500*l.*, according to quality and blood, and if you wanted a pair of fairly good birds I am safe, I think, in saying you could not get them under 100*l.*, and, to prove that, there was a sale here about one month ago at which 26 pairs of ostriches realised over 3,000*l.*, an average of over 100*l.* a pair; in fact, I bought one pair at 70*l.* odd, and another pair at 90*l.*, and one pair was sold for 290*l.*

4163. Those are current prices?—That happened a month ago, even with this drop. No owner of good birds will sell for much less than 100*l.* a pair.

4164. I suppose, in order to avoid fouling the ground, it is necessary to give constant change?—Yes, if you can. It is difficult to do it, our land being so limited. That is the reason why some of our farmers have gone to other parts of the country to practically new lands, where they hope to be able to breed and rear a larger percentage of ostriches than we can here on our limited area.

4165. Given a certain amount of land, is it better for the birds that that land should be divided into large enclosures or small enclosures, so that the birds may have more frequent changes?—The more changes they can have the better. The farms here are all divided into 5, 10, 15, or 20 morgen paddocks. You irrigate your one field, and three weeks after you have irrigated you put your birds into it, and the birds graze until you consider the food is all finished, and then you shift them into the next camp, and so on in rotation, following up with cattle and horses and sheep and other stock.

4166. We find in England that in regard to poultry, for instance, constant change is better and more beneficial than extensive range?—Yes, you see all our land is divided into paddocks.

4167. You mentioned a great many alternative crops other than lucerne that might be grown—fruit and tobacco, and food for cattle. All this is dependent on irrigation?—Yes.

4168. Have you trouble with your water rights?—Yes, sometimes. But the water rights in this district are practically all settled by arbitration and by judgments of the Supreme Court, and by understandings.

4169. In the case of an irrigation scheme abstracting water from the tributary of the main stream, are the riparian owners on the main stream entitled to compensation?—No.

4170. Cannot you impound the head waters of any tributaries?—Yes, provided you do not injure your lower neighbour. But if you do that, of course, you are running up against a stone wall, so to speak.

4171. **(Mr. Campbell.)** This drop in ostrich feathers, do you consider it is due in any sense to over-production, as far as you know?—You can see from the returns how the production has been going on, and how the merchants on the other side have been finding new markets and outlets for the production. We have had one or two drops before, but I daresay the business is rather dependent on fashion. You know there was a great agitation some time ago in regard to cruelty to animals, and that may have affected the trade to some extent. Then we think, also, that the manufacturers of ribbons and other hat decorations are probably pushing their trade as far as they can to the detriment of ostrich feathers. So it is fickle fashion we have to depend on. I have no doubt, however, that the day is not far hence when the ostrich feather will again be largely worn, and you must not forget that the hats now worn by ladies are not so large as formerly, and a small hat will take no feathers. When the large hat again comes into fashion, I think we shall be practically the same as before. Another thing is that boas have not been worn for some years.

4172. You do not think that the over production of feathers during the last few years has had any effect?—No, not a serious effect, because up to the last three markets the feathers have always sold well. What has affected the market very largely, in my opinion, is that some sellers have held back their supplies, and these supplies have been accumulating rather heavily on the other side, and this naturally tends to reduce the price.

4173. In the marketing of the feathers, do you know of, or have you heard, any suggestions that the feather market is controlled by any combination of feather dealers?—No, I think the feather market in London is in fair competition with the world's buyers. I do not think there is a possible chance of a combination. There may, of course, be one or two large buyers who may say, "We are not going to buy to-day," and that will, of course, affect prices for that day, but seeing that you get buyers from France and America, and all over Europe, and elsewhere, I do not see that it is possible for there to be anything in the nature of a combine to rule the prices obtaining in the London feather market to-day.

4174. Does the price you receive as growers correspond fairly regularly to the retail prices of feathers in the retail markets of the world, as far as you know?—We cannot say.

4175. There should be some ratio?—No, unfortunately there is not. I have never met the man yet who could tell me the actual value of a prime ostrich feather. They vary so much, and opinions are so different. It is just as a man's eye strikes the feather that he estimates its value. Even the expert cannot say.

4176. Is the grower at the mercy of the man who is buying as an expert?—No, I do not say so.

4177. The farmers themselves surely have some expert knowledge?—I do not think anybody knows. I do not think even the man who supplies the market knows.

4178. Not even as a rough generalisation?—There is no standard of value for an ostrich feather. It is merely the value which the individual buyer places upon it.

4179. But in breeding ostriches for the production of feathers, surely you try to aim at some specific ideal?—Yes, we all aim at a long broad thick flue and a glossy feather. This ideal is not always attained, but that is our aim. We aim at a fine large feather, running evenly up—a thick feather, with heavy flues, and with a sort of silver gloss shining on it. That would be an ideal feather.

4180. Well, now, looking at that standard, you could not give any general idea as to whether the average price of a standard feather of that type bears a constant relation to the average price at which it is sold in the markets of the world, so as to find whether the price which you get is a genuine price or is controlled by somebody else?—Naturally, we know that some of our farmers have sold feathers at ten and twenty shillings apiece, but those would be picked feathers, and, of course, the man on the other side would sell them in ratio.

4181. But you have no reason to suppose that there is any combination, like there is, for instance, with diamonds?—No, I do not think so. There may be combination here and there, but I think, speaking generally, the farmers in South Africa have been very satisfied with their returns and their treatment at the hands of the buyers. Both farmer and buyers have made money, and if the farmer gets a good price, he is willing for the next man to get some return. After all, even the middleman has to live. The farmer has to produce, the middleman has to find the merchant, and the merchant the market. If you do not leave a margin for the merchant he cannot speculate. I think up to now we have been fairly satisfied.

4182. In reply to Mr. Garnett, you gave the average number of birds per morgen as six?—Yes.

4183. Does that apply to these very high values of land, or is it greater there?—That is the average for the Oudtshoorn District. In some places you cannot get that number of birds, and some of our farmers do not keep that number on a morgen of ground, but taking the ordinary average farm, you could comfortably keep six birds on a morgen, and have sufficient food-stuff for winter food.

4184. Speaking as a practical farmer, would you buy land at 200*l.* an acre for ostrich-farming?—Well, I prefer to sell it.

4185. I suppose the high price of birds, and the capital needed for the business is so great that the small holder would not have much chance?—No, it is almost out of the question, although we do have small owners with 15 and 20 birds, but then they have had the land. I do not think it would be a wise policy for any small holder to buy land at the prices prevailing here.

4186. Could you say roughly what is the average number of birds kept by individual holders in this district?—It would be hard to say. We have five-morgen lots, and ten-morgen lots, and 20-morgen lots. The size of the holdings varies so much.

4187. What would be the average number of birds an ordinary farmer would keep?—According to his land. As I said before, six to the morgen.

4188. You could not say whether the average farmer would keep 100, 200, or 300?—The whole district is devoted to ostriches.

4189. But there must be some general average number of birds that each farmer runs?—It all depends on how many morgen of land he has.

4190. There must be some means of striking an average?—We estimate that there are 110,000 birds in the district, but I do not know how many farmers. One firm of farmers runs 7,000 birds.

4191. You could not say generally whether the ordinary farmer's average would run to 200, 300, or 400?—There are many with 500.

4192. Would you say 500 was the average?—No, that is too large.

4193. Well, 400?—That would be too large. It is most difficult to strike an average, but reckoning so many birds to the morgen would give you the best idea. I would not like to answer that question.

4194. Is not dairying one of the possibilities of the district?—Yes, a very great possibility.

4195. Would it be profitable?—Yes, a dairy business in this district would be quite profitable.

4196. And that business could, as a general thing, be carried on fairly well by small-holders?—Yes.

4197. Is there any possibilty, by means of irrigation of extending the dairying business?—There is a small amount of dairying carried on. The farmer makes his own butter here and sells a little. But ostrich-farming has paid so well that the farmers have devoted their attention to nothing else, except tobacco.

4198. But is it not a fact that dairying is one of the great needs of South Africa to-day, and is it not one of the industries that could be carried on here?—Certainly. But we are not philanthropists. A man produces the thing that pays him best.

4199. But I am merely questioning you as to whether there is any possibility of making use of additional land, by co-operative action or Government assistance, or other organisation, for carrying on dairying, which is such a necessary business in this country, judging by the imports of dairy produce from oversea?—If prices of feathers went down very much more, I am sure that dairying would take a place here. I make quite a lot of butter myself, but we have no co-operative dairies.

4200. Dairying not being subject to fashion, would it not be more reliable?—No doubt it is reliable, but as I have said before, in the past the ostrich industry has paid so well that farmers have found it better to devote their whole time to it.

4201. I am not speaking of the individual farmer. I am considering the matter from the standpoint of the Government carrying out these large irrigation schemes and forming settlements in the future, whether it would be a better policy to enter on ostrich-farming or dairying, having regard to the future outlook and the economic needs of the country?—Dairying unquestionably would be good, and I hope the day is not far distant when we shall make sufficient dairy pro-

ducts to supply the needs of this country. But when you have an article that brings in a bigger return you are not going to make butter for the sake of the country when it may mean a loss of 500*l.* a year. I do not think it is possible for the Government to carry out these small settlements in this district.

4202. You have possible irrigation schemes in this District?—Yes.

4203. Looking at the matter from the point of view of the economic needs of the country and the profit from the industry would it not be better in commencing these schemes to go in for dairying?—While ostriches pay well, dairying would not be carried on on a large scale.

4204. You do not think that dairying could compete with ostriches at the present time?—No.

4205. Is there any great margin of difference between the two?—When ostrich feathers come down very low we might consider dairying.

4206. With regard to riparian rights. Could you say whether under Roman-Dutch Law the riparian rights of the owner extend to irrigation?—Yes. The riparian rights are first for domestic purposes and then for stock and then for irrigation in equal divisions.

4207. Could a man take a supply for irrigation purposes so as to disturb the flow down below?—As long as he does not interfere with the supply for domestic and stock purposes.

4208. What about the lower owners' riparian rights in regard to irrigation?—In this district I may tell you that all these questions have been settled by judgment of the Supreme Court and arbitration.

4209. And the judgment has decided that the owner has irrigation rights?—Yes, but he cannot deprive his neighbour lower down who has his rights too. Where there are, say, ten or fifteen holdings on the river all entitled to water, the water would be divided in proportion to the land each one held in rotation.

4210. **(Mr. Sinclair.)** Is the Commission to understand that apart from a system of Government conservation of water you are about at the limit of your feather production in this district?—Yes, I think we have brought practically all the land under irrigation that can be irrigated by means of gravitation. There is a little that could be brought into use by pumping, but the water supply is so erratic. We have come to the limit, practically speaking, without the conservation of water.

4211. So that if the industry is to extend you must look for a Government system?—Yes, or help in some direction. It might be done by private enterprise, but it is a big scheme and there are many complications.

4212. You think it is too large a scheme for private enterprise?—Yes.

4213. You have told us the position as between yourselves and the Government. Is the suggestion that, owing to the high cost which is necessary, the undertaking is prohibitive?—I do not think they have made any suggestion. I may tell you the Government has not yet finished the whole of the surveys. The survey is still going on. They are going up the Oliphants River Valley. When once they have surveyed the whole of the irrigable land that is under water at present and which can come under water, I believe it would be the object then of the Irrigation Department to lay before the people for them to discuss some scheme for constructing large irrigation works, and to find ways and means of bringing all the available land under water.

4214. Then this survey is the first step?—Yes, I may tell you also that they have gauge weirs on the rivers at present and I do not think that it would have been advisable for the Government to take any action in the direction of these big schemes without sufficient data.

4215. One result of this preliminary inquiry will be to show whether the work is of such magnitude that it calls for Government assistance or whether it can be undertaken by private enterprise?—Yes.

4216. Now, roughly speaking, is the area that would be made available by a Government system or a capitalistic system of conserving water larger or smaller than the area already in use?—Smaller.

4217. Appreciably smaller?—Considerably smaller.

4218. Could you give us an idea of its proportion?—Possibly by two-thirds. That means that about one-third more could be brought under cultivation.

4219. And when that one-third has been brought under cultivation for ostrich-farming purposes you will have exhausted the possibilities of this district?—Yes.

4220. By a careful system of breeding and selection and the naturally favourable conditions that you have here you have produced a feather of the primest quality?—Yes.

4221. That has been the result partly, as I gather from you, of selection and partly it has been brought about by the favourable conditions of your soil and climate?—Yes.

4222. I wanted to ask you a question as to the possibility of the bird being improved in other Colonies, such as Australia. Have you been to Australia?—No.

4223. Are you of opinion that, this being the home of the ostrich, in another country it is not capable of being produced so as to furnish feathers of the first quality?—I should not like to say that, seeing that other animals and birds can do well in countries other than those which are their natural home. I may mention, however, that it is a thing very largely of breeding.

4224. Seeing the great improvement that you have been able to effect here by selection in the breeding of the bird, do not you think that the same process could be carried out under favourable conditions in other countries?—Yes, in the course of years. But it has taken us fifty years to bring it to the present state.

4225. Perseverance and selection, and care in breeding may achieve, at any rate within certain limits, what you have done in this district?—Yes, and the climatic conditions.

4226. By climatic conditions you mean, of course, plenty of sunshine and a dry surface?—Yes.

4227. Well you can get that in abundance in Australia. You said also that a soft soil was favourable?—Yes.

4228. It is less destructive to the feather?—Yes. If you get a hard gritty soil it injures the feathers and reduces their value. The birds are like ordinary fowls and are rather fond of rolling in the dust.

4229. I think you told us that only about one-third of the chicks that are hatched are reared?—Yes.

4230. They suffer from insect pests?—Yes.

4231. Has the State or the Government done anything to help you by investigating this insect life and devising means to destroy it?—Only in a very half-hearted manner. It has been impressed upon the Government for years past by Farmers' Associations at their annual conferences. The Government has been urged to inquire into the life-history of these pests.

4232. You suggest that the Government should undertake this work in the interests of one of the most important industries in this country?—Yes, with an export value of over 2½ millions.

4233. It would be a shocking waste, if it is preventable, that two-thirds of your chicks should perish from causes which might be avoided?—Yes.

4234. And you express that view as strongly as you can?—Yes, as strongly as possible, because in a good many cases I may tell you that farmers are keeping birds which are not up to the standard, and if it were not for these heavy losses they would destroy them, but they have to keep them in order to keep up their stock.

4235. Has there been any local co-operation in that direction among growers who are so largely interested?—Yes, I myself have been doctoring my birds for a long time. I think every farmer here tries to find out what is the matter with his birds and to save as many as possible.

4236. Have the efforts which have been made by private growers tended to reduce the rate of mortality among the young birds?—Yes, in some instances. Of course, there are many quacks going round selling this

pill and that pill, but there are one or two remedies given us by the veterinary surgeons which are very effective provided they are given systematically and with care.

4237. There is room for good work in this direction?—Yes there is room for a man to be specially set aside to look after this matter seeing that we export 2½ million pounds' worth of feathers annually. This man should do nothing else but discover the parasites which infest ostriches, and study their life-history.

4238. No doubt you are aware that in some Colonies the State appoints men to go round the country and to give instructions in various matters affecting the interests of the farmers and the country generally in order to obtain a better article and increase the exports?—Yes.

4239. And you want that done here?—Yes, although we are often told that the Government is doing everything for the farmer it is not doing nearly as much as other countries are doing.

4240. When I questioned you about the possibility of improving the bird in other countries, I wanted to find out what the people themselves could do by careful breeding to improve the birds, and it is quite evident from what you have told us that they could do a great deal?—Yes.

4241. They would be helped, of course, if you sent them some birds?—Yes, they would be helped too quickly. It has taken us fifty years to bring the bird to its present state and we do not want other countries to do it in five years.

4242. **(Mr. Bowring.)** Does it require much labour to take care of ostriches?—Yes, but not the same amount as is necessary to cultivate land for crops and for fruit and so on. But you need a certain supply of labour to irrigate your lands, and men also who are thoroughly acquainted with the work connected with ostrich-farming. New hands working with ostriches are a source of trouble. They get hurt themselves and they hurt the birds. You do not want the same number of men per morgen for ostriches as you do for working vines, fruit, wheat, or tobacco.

4243. Have you so many men per 100 birds?—A man generally keeps so many men on his farm all the year through. You see, we all have our shuts to keep clean and the dams to build up and so on, but a couple of men could very well look after 100 birds.

4244. A farm on which there are, say, 1,600 birds will probably require 20 men?—No, about 10 or 15.

4245. Are they coloured men?—Not all, each farmer, as a rule, has a couple of white men.

4246. About what wages do you pay?—I think the wages would run from 3*l.* to 4*l.* a month or say 3*l.* 10*s.* for a coloured man. And beside that they have their houses and other things free.

4247. What privileges do they have?—They have a free house and free wood and a lot of dairy produce such as milk, skim milk, and very often they have a small garden. The average wage for a loose man is from 2*s.* 6*d.* to 3*s.* a day.

4248. Do not white people get rather more?—Yes.

4249. Do they get a great deal more?—No, because after all the labour is unskilled and unless a man was in the position of a foreman he would not get much more. As a foreman he would get possibly 5*l.* or 6*l.* a month and considerably more if he takes full control. But for unskilled work, if he is equal to the coloured man, he would only receive a few shillings more.

4250. How many markets are there in the course of the year?—Six. There is one every two months.

4251. Because the statement here shows that the drop in prices has not been very great up to 1912 at any rate?—No.

4252. The price was 2*l.* 7*s.* 1*d.* per lb. in 1912. Previous to that the price was 2*l.* 10*s.* for the year 1910 according to this statement?—Yes.

4253. What is the price now?—That is rather difficult to say. It is rank speculation just now. Some of the largest firms are not buying and we have not got the return for the last London market. We cannot tell until we get the returns.

4254. Have you a fair idea?—I should think myself there has been a drop of 50 per cent.

4255. From 2*l.* 10*s.*?—No, but as far as I can judge the ruling price for feathers here is certainly 50 per cent. less than the price three markets ago. That is to say, that if a bird brought 8*l.* or 9*l.* then it is only bringing about 4*l.* now. I may say that the average return per bird is higher here than in other part of the Union.

4256. **(Sir Rider Haggard.)** Is it the tendency here for ostrich-farming to concentrate into fewer hands and to be carried on by the larger firms or otherwise?—It would naturally follow that where you have a community which is making money and the people do not invest their money in bonds and mortgages and Government securities they secure as much land as possible and wherever they can get land in their own vicinity the tendency is to buy as much as they can.

4257. Therefore it looks as though the small man were going to the wall?—In all industries it comes to the same thing. Where there is keen competition the man who is the strongest holds out.

4258. Is it so here?—It is so.

4259. What capital is required per bird?—That is difficult to say. It is generally reckoned that with your own land you can keep 100 birds on land that is worth 5,000*l.*

4260. You have to stock it?—Yes.

4261. Therefore, the remaining capital is the cost of the birds?—Yes, the birds may be worth 1*l.* or 30*s.*, or 100*l.* each. I may mention that the other day a man in this district died, and his estate had to be divided. The ordinary running troop of birds fetched about 12*l.* 10*s.* each. The first lot was something like 20*l.*, and the last something like 6*l.*, so you can say that possibly about 13*l.* is the average. These birds were not specially selected.

4262. Were they adult birds?—Yes.

4263. And yet you told me the average price was 100*l.*?—Yes, but that is for selected birds for breeding purposes.

4264. The average run of Oudtshoorn birds is considerably less?—Yes, the flock birds would average anything from 1*l.*, but good average birds would not be obtained for much less than 10*l.* to 15*l.*

4265. Do you fear the competition of other countries?—Naturally, when you have only frivolous fashion to depend on.

4266. Do you think that other countries could fulfil all the conditions which are necessary to successful ostrich-breeding, such as America and Australia?—If they had the blood perhaps they could.

4267. Does the price put on the article by the retailer in England, for instance, check the market. You know the retail purchaser pays a very different figure for it from what you get?—Yes, I have had the opportunity of going through the factories in England. There was a great scare some years ago about supply and demand. I was in England at the time and went through most of the warehouses and interviewed the manufacturers. I saw the processes which the feathers have to go through, and do not think that the prices charged for manufactured feathers are too high. In isolated cases, and for the very finest feathers, they would charge high prices. But you have to take into consideration the enormous quantity of manufactured goods in the warehouses of London, and one naturally supposes they are as anxious to get rid of the stuff at a profit as we are to sell, so I do not think that we have very much to complain of in regard to the system.

4268. Your answer is that the price charged by the retailer does not affect you?—I do not think so, very much.

4269. You were speaking about cruelty and its influence upon the feather-buying public owing to the very proper agitation which was recently created on the subject of cruelty to birds, egrets and so on?—Yes.

4270. Have you taken any steps to inform public opinion in England and America that the plucking of ostriches involves no cruelty?—Yes. Directly we received information that there was a probability of the ostrich being included in the Anti-Plumage Bill we had a meeting of our Association, and we wired to the Union Government Trades Commissioner in London

a very long cable, pointing out that it was an absolute fallacy to think there was any cruelty involved. As we pointed out, there are many birds in this district which could not be bought for 500*l.*, and is it likely that the owner of a valuable bird like that would treat it with cruelty? Since then I think the Trades Commissioner in London has made it thoroughly plain in all the European centres. I had a communication from him the other day in regard to one of the leading men in Paris, and he says that he was talking about the cruelty question in connection with the Anti-Plumage Bill, but he said it excluded ostriches, and, as you are aware, the English Bill will also exclude ostriches. But where you have the impression that cruelty is committed it is difficult to remove that impression from the minds of people, and I think our Trades Commissioner is alive to that fact, and is doing everything in his power to remove the impression if and where it exists.

4271. **(Mr. Garnett.)** Plucking is not a correct discription of what takes place, I understand. It is a misnomer?—Yes, in regard to the white feathers but not as far as the other feathers are concerned. There is no more, and indeed less, cruelty in this operation than in sheep shearing. The feathers are practically ripe at eight months and can be taken out.

4272. What are intervals between the pluckings?—We reckon three pluckings in two years.

4273. **(Mr. Campbell.)** Would the bird shed the feather if it were not plucked?—Ostriches are peculiar. They do not moult like other birds. When the feather is absolutely dead it comes away.

4274. You simply anticipate what would occur naturally?—Yes.

Mr. A. E. Martin, representing the Oudtshoorn Chamber of Commerce, called and examined.

4275. **(Sir Rider Haggard.)** You have heard the evidence of Mr. Edmeades?—Yes.

4276. Have you anything to say in addition? Perhaps you would kindly make a statement?—Regarding the price of lucerne ground, the highest price that I know of was 850*l.* paid for three quarters of a morgen sold in the Cango District.

4277. Why was such a high price paid?—The people had the money and they wanted the ground.

4278. What is the next point?—Regarding the figure at which it would pay a man to farm, I think it would pay at 1*l.* a bird, but not at 1*l.* per annum, as Mr. Edmeades stated.

4279. You mean at the rate of three pluckings in two years?—Yes.

4280. That would mean 30*s.* or more per annum?—Yes. In regard to the question of drought I know that on Mr. N. Fouchie's farm there had been no water for nine months and still the lucerne was about two feet high without any water at all.

4281. Owing to sub-soil water?—Yes. As regards the amount of ground under irrigation at the present time, tobacco stands at a very high price and lucerne ground is now under tobacco. If tobacco went down we might put it under ostriches, so we have not yet finished even all our present irrigable ground.

4282. You mean that you would replace tobacco with ostriches?—Yes. As regards the soiled feathers, in many cases, if we have severe weather, we get a large percentage of soiled feathers.

4283. Can you not wash them?—No, it is not safe because we have had complaints from the manufacturer. He objects, and the American Government, it is reported, once raised the question that if washed feathers came in, they would charge the manufactured rates, which, I think, was 50 per cent. In regard to to water boards, I do not think any District in the Union has spent more money over litigation in regard water rights than this District. Mr. Edmeades made a slight mistake when speaking of plucking. He used the term, body feathers. That does not really mean the feathers from the body of the bird. It means the feathers which lie over the white feather on the wing. We do not pluck the body.

4284. You only pluck the wings and tail?—Yes, and besides the primes and the floss, some only pluck the "biocs" from the wing and the "boos" from the tail. When the feathers are quite dry they are drawn from the wing. There is no blood, and there is no suffering inflicted.

4285. **(Sir Jan Langerman.)** What proportion of ground have you under lucerne, tobacco, and cereals?—Most of it is under lucerne, and the next largest crop is tobacco.

4286. Have you got water from bore-holes?—A little, but not much. The experts say it is a difficult formation to bore through. The water they have got has not been very good, but I believe it would be better if they went down deeper.

4287. **(Mr. Sinclair.)** As ostrich-farming is so profitable, why is so much of the ground used for tobacco?—The price of tobacco has been very tempting lately.

4288. Are the two crops comparable from the point of view of profit?—Yes, I think in time tobacco will pay better if the feathers go down very much in price.

4289. Is the land specially suited for tobacco?—Mr. Chambers will tell you more about tobacco than I can. In regard to putting people on the land for ostrich-farming, I may mention that a large number of people have left the land about here on account of this concentration of capital in a few hands.

4290. **(Mr. Campbell.)** Are you a buyer and shipper of feathers?—Yes.

4291. Are you charged a special rate of freight on feathers?—Yes, 1 per cent., the same basis as gold.

4292. Is that a very serious charge?—I do not think so, because they give us special care.

4293. In regard to feathers and tobacco, I suppose one could say that the tobacco market is extending in size and price, and that it is likely to continue?—I believe so.

4294. Is there any tendency for the population to concentrate in the towns?—It is a growing tendency. Originally they had vines and crops and other things, but there have been so many people going in for ostriches that it has been rather overdone. There is one farm on which a few years ago there were 101 registered voters, and I do not think there are 60 there to-day.

4295. Are those natives?—No, mostly white people.

4296. Generally speaking, the labour employed here is native?—Largely, but we must have some white labour also.

4297. Ostrich-farming is, I suppose, most usually carried on near the town?—No, wherever they can get irrigable land.

4298. **(Sir Rider Haggard.)** Did you suggest just now that those registered voters have flown into the town?—Yes, or elsewhere.

4299. Owing to putting the land under ostriches?—Yes.

4300. Is that going on generally?—It has gone on in several parts of the district.

Mr. R. F. Chambers, representing the Town Council of Oudtshoorn, called and examined.

4301. **(Sir Rider Haggard.)** You are going to tell us something about tobacco-growing in this district. Are you a grower?—Yes.

4302. On a large scale?—On a very fair scale.

4303. How many acres have you under tobacco?—I got about 30,000 lbs. last year, about 700 lbs. an acre.

4304. In the statement prepared for us * it is stated that there has been practically no export of Boer tobacco to the United Kingdom. Is that because of its peculiar flavour?—Yes, it is a bit strong, but last year we sent some to England. We received our money, but they did not give us any opinion. We can make it mild also.

4305. Is tobacco increasing?—Yes.

4306. Is it all consumed locally?—Yes.

4307. You have not made any serious attempt to put it on the English market?—No, but we hope to do so.

4308. Is there any point you would like to put before us?—Only this. Mr. Martin mentioned about 101 registered voters who were engaged in farming other than ostriches. I would like to say that, as far as tobacco is concerned, we do not grow it ourselves. We grow it on the tenant system, on half shares. That is why we get so many registered voters on a farm.

4309. Is it profitable?—Yes, I suppose it is as good as feathers just now. When the lucerne ground gets too old we put it under tobacco for a few years to clean it.

4310. Is that why you think you have an advantage over ostriches?—I think we are about equal to-day.

4311. Can you say what is a good return per acre on tobacco?—Last year I got about 700 lbs. per acre. The market was about 8*d.* a lb. That is about 20*l.* an acre, gross. That is in the leaf.

4312. I suppose the expenses are large?—Yes, if you turn it into roll it may give you 1½ lbs. instead of 1 lb. There is a certain amount of lye used in the roll, and it has also more moisture in it. There is a certain amount of ash bush used in making the lye. That helps to increase the weight.

4313. What proportion of the 20*l.* an acre would be expenses?—We reckon to twist 1,000 lb. of tobacco at a cost of a little over 3*l.* That is from the leaf to the roll.

4314. How much does it cost to get it to the leaf?—I have not gone so carefully into the matter. Some bywoners will realise about 250*l.* a year on the half-share system with one white man and two boys, whom they have to pay out of this 250*l.*

4315. Do you think there is room to extend it much?—I think if feathers come down more people will go in for tobacco, and the price will fall unless we can export.

4316. What is the price of land for tobacco?—About 400*l.* or 500*l.* a morgen irrigated when you can get it.

4317. Are there any other points?—No.

4318. **(Mr. Lorimer.)** Has this factory to which you refer taken any definite shape yet?—No. We only started manufacturing last May.

4319. Is the factory for the purpose of extracting the nicotine from the tobacco?—Yes, that refers to nicotine for dipping purposes, but ours is for making smoking tobacco.

4320. The nicotine factory is not in work?—No. Not erected yet.

4321. What do you do with the tobacco which is grown here containing 4 per cent. of nicotine, which Dr. Hahn says is not fit for smoking?—Some of it goes to the Kaffir. He chews it. I would not say it was too strong.

4322. Do you export much of it to foreign factories for the extraction of nicotine?—No.

4323. You think you could grow enough tobacco here to keep a factory going for the extraction of nicotine?—Yes.

4324. Are the sheep-dips which you use imported ready for use?—Yes.

4325. You require a factory for that purpose?—Yes, the one which I mentioned is not for that purpose, but for making tobacco.

* *See* p. 190.

4326. According to your statement you produce in this district more than half the tobacco produced in the Cape Colony?—Yes, this land is specially suitable because there is limestone under the soil.

4327. Have you plenty of available land?—Yes.

4328. Do you get any assistance from the Agricultural Department?—Not much. We had an expert but he was not of any assistance.

4329. Do you make any experiments in regard to the varieties of plants?—No. We keep the old plants. We tried a little experiment but it was not successful.

4330. **(Mr. Sinclair.)** Is there a Government expert appointed to give instruction in tobacco-growing?—Yes, there is in the Union, but not about here. He came here about six months ago, but I think it was in order to learn rather than to teach.

4331. Would it be useful to have such a man?—Well, we must improve, because our tobacco contains such a high percentage of nicotine. It would be of assistance to have an expert instructor.

4332. That is the direction in which you think the State could be of assistance?—Yes.

4333. **(Mr. Campbell.)** In the memorandum there is a statement that dip should not contain less than 8 per cent. of nicotine and on another page it says that your tobacco contains over that percentage and should be suitable for sheep dip?—I do not know, but I will say this that our tobacco has more nicotine than any other tobacco in the Union.

4334. One of these figures must be wrong, but you cannot say which?—No.

4335. You say your tobacco contains 4 per cent.?—I know it contains more nicotine than any other in this country.

4336. How does the production of your land compare with that of other countries?—I cannot say.

4337. I have seen it said that in America they can produce 2,000 lbs. or 3,000 lbs. per acre?—We cannot do it.

4338. You do not grow Turkish tobacco?—No.

4339. Is not that the kind on which South Africa is depending?—That is where we require assistance.

4340. South Africa is supposed to be specially suited for growing Turkish tobacco, is it not?—I think so in some parts.

4341. Is there not a small export?—Very small. We ourselves do not export.

4342. Has lucerne to a large extent absorbed the tobacco land and is it going on now?—I would not say at present.

4343. The tobacco business is holding its own at present?—Yes, but it has not increased very much in the last few years.

4344. **(Mr. Garnett.)** You say that dip should contain not less than 8 per cent. of nicotine. Am I right in supposing that statement to mean that whatever other constituent parts there are in sheep-dip it should have at least 8 per cent. nicotine?—I should say so.

4345. And you say that Oudtshoorn tobacco contains more nicotine than any tobacco grown elsewhere in the Union. The analysis shows over 4 per cent. nicotine. That means that in every lb. you have 4 per cent. Therefore, your argument is that with this high percentage your tobacco is very suitable for the purpose of distilling nicotine in order to make sheep-dip which should contain 8 per cent.?—I am not prepared to say, except that our tobacco contains the most nicotine.

4346. Your argument is that your tobacco is very suitable for making sheep-dip because of the large percentage of nicotine?—Yes.

4347. The 8 per cent. in the sheep dip and the 4 per cent. in the tobacco have no necessary relation to one another?—There is no relation between the 4 per cent. and the 8 per cent., but our tobacco containing such a high percentage as 4 per cent. is, therefore, more suitable as a sheep dip, which must contain not less than 8 per cent.

Mr. Karl Schenck, representing the Town Council of Oudtshoorn, and formerly Government Tobacco Expert, called and examined.

4348. **(Sir Rider Haggard.)** You were formerly Tobacco Expert for the Government?—Yes. I am now and have been for the last twenty-five years a tobacco manufacturer.

4349. What points do you wish to bring forward?—In regard to the nicotine question I would like to point out that at the time I was Expert I had some tables and analyses made to find what were the percentages of nicotine in different samples of tobacco grown in the (then) Cape Colony.

4350. **(Mr. Lorimer.)** Is it the finest tobacco which contains the least nicotine?—Yes.

4351. When you extract the nicotine from the tobacco what do you do with the remainder?—It cannot be used any more, not even for manure. You must use chemicals to extract the nicotine and that makes it injurious for other purposes.

4352. I understand the sheep-dips are imported ready for use?—Yes.

4353. Then if tobacco with a high percentage of nicotine cannot be used for smoking it must be exported to make this sheep-dip?—No, it would not pay. The prices are too high for strong tobacco, which is used for the native trade. Most of our nicotine sheep-dip comes from Austria, which uses its own tobacco. It is also imported from America.

4354. All your tobacco is used here?—Yes. Our export is insignificant and most of it goes to German South-West Africa.

4355. We are told that such strong tobacco is dangerous to use, but people do use it and survive?—Yes.

4356. **(Sir Rider Haggard.)** Are there any more points you wish to bring before us?—In regard to the English market I want to point out that the trade ports for tobacco are really in Holland and Bremen and not London. They can buy there Dutch India tobacco and American tobacco at 4*d.* or 4½*d.*: that is in Rotterdam. We have to pay from 5*d.* to 8*d.* a lb. here, so that clearly shows that we never can export when other countries can sell so much cheaper.

4357. It is not everybody who likes the taste of Boer tobacco. If you could modify that peculiar flavour could you not export?—At the time I was Government Expert I tried to show in what way it could be improved in order to export, but then one has to export in the leaf. In the meantime the feather industry was booming, and owing to the fact that tobacco required more care and trouble it was neglected in favour of ostriches—as far as this District is concerned.

4358. Do you see any prospect of this Boer tobacco being made marketable by a modification of its peculiar flavour?—Yes, by proper fermentation. It could be prepared.

4359. Can tobacco be grown equal to American tobacco?—That is difficult to say. One cannot be positive.

4360. Have you ever seen any tobacco produced in the Union which would class with high class Virginian, for instance?—I have seen about three samples which were simply excellent. There were only a few leaves. I think some came from Sundays River, one sample from here, and one from Pondoland.

4361. Does the Government give any assistance in the way of instruction?—There are several experts in the country, mostly in the Transvaal. There is one at Stellenbosch for the Turkish tobacco, Mr. Stella. We received a visit from an expert some time ago. We gave him assistance, but we have not received his report yet and nothing practical has come of it. In regard to the sheep-dip question, the nicotine is extracted from the tobacco. American tobacco and Havana is said to contain about ·6 to 1·89 per cent. One can also make 8 per cent. nicotine sheep-dip out of that. It simply means one would have to use a larger quantity of tobacco. I do not think the Government is doing all it should do in the direction of giving instruction. We have to use artificial manure to produce the particular leaf which is required for export, and there, of course, we would require Government help to tell us what is required. It would not pay under the present system to export because the local price is too high compared with prices ruling in Europe and is caused through a protective duty of 2*s.* 6*d.* on imported tobacco coming into this country.

4362. **(Mr. Lorimer.)** What is the constituent element in the soil which determines the amount of nicotine in the tobacco?—Chlorine and nitrogen.

4363. Wherever you have a large amount of chlorine and nitrogen have you a large amount of nicotine in the tobacco?—Yes.

4364. Can you counteract that by certain manures?—Yes.

Port Elizabeth, Friday, March 13th, 1914.

Mr. Oscar Evans, farmer, and a Member of the Land Board, called and examined.

(*For the evidence of this witness on "Land Settlement and Irrigation," see p.* 24.)

4365. **(Chairman.)** I understand that you are a large farmer?—Yes, and a member of the Cape Land Board. I was wired to a few days ago by the Minister of Agriculture to come down and give evidence in connection with the ostrich-farming question. I am, however, rather at a disadvantage, as I had not had time to prepare myself with many figures.

4366. In regard to ostrich-farming, the Commission have heard at Oudtshoorn a considerable amount of information. About the industry in this district—is it developing?—Yes, we look upon Oudtshoorn, of course, as the hub of the industry in South Africa. It is owing to the amount of lucerne they are able to grow there.

4367. Can the birds be farmed wherever lucerne can be grown?—Yes.

4368. With equal advantage as in the Oudtshoorn District?—No, I would not say that. It depends on the climate, of course. The quality of the feather has to be taken into consideration. The feather is fragile, and heavy rains militate against it. In Natal they grow feathers to a large extent, but they cannot produce the high-class feather which is grown in the Cape, and even in the Cape there is only a certain part which will produce really tip-top stuff.

4369. The quality being due to the absence of heavy rains?—Yes, in this area, and also due to other climatic conditions—good bright sun and a crisp atmosphere.

4370. Do you anticipate a large increase in the production of ostrich feathers from this country?—Yes, I anticipate a considerable advance in production in the future.

4371. Is there any fear that if production largely increases it may affect your prices?—Well, I do not think it is going to affect the prices very much. We have been nervous about this industry ever since its inception forty years ago. Men have said it was very dangerous to invest money in, but many fortunes have been made out of it since then. In 1888, the average price was 1*l.* 6*s.* 9*d.* per lb., and the feathers exported from this country that year were only 259,677 lbs. Last year the weight produced was 1,033,000 lbs., and the price was 2*l.* 16*s.* 4*d.*, showing an enormous advance

in production, and yet the price is very much higher than in 1888. The fluctuation in the price of feathers has not after all been much greater than with any other kind of product—than mohair or wool, as far as we can see. The increased production does not seem to reduce the price at all. I think there is going to be a big advance in production. The one thing we have feared all along is the competition of other countries. But I may say that I have just been to America, and I was very pleased to have had the opportunity of calling on the ostrich farmers there, and seeing the progress of the industry in that country. I may say that they are a long way behind this country in the production of feathers, and I fancy there must be something in the climate which militates against the production of good feathers. They have been farming ostriches for twenty-seven years.

4372. In California?—Yes, and Arizona. Arizona is the State that resembles South Africa more than any other in America, and they have there large tracts of country under lucerne under the Roosevelt dam. I saw thousands of acres of lucerne, and they are on exactly the same tack as we are. They have good men. The system of farming is exactly the same as ours. I could not find fault with the system at all. We look to America for pretty sharp men as regards breeding, and I reckoned that after twenty-seven years they should have been far in advance of their position to-day. Their feathers were far inferior to ours, and I think it must be due to climatic or other inherent conditions which are against the ostrich. I was told, however, that they intend to push the industry for all it is worth. I had the opportunity of meeting the men at the head of the live-stock section of the Agriculture Department there, and they said they intended to push the industry. They are very keen indeed, and we are very anxious still about the American competition.

4373. And the Australian competition?—That is a big factor also. I have not had the opportunity of seeing them there, but I fancy the birds are doing better than in America from all I have heard.

4374. In Australia and America what do they do for breeding purposes?—They are simply breeding from their own stock. That is one reason they give for being so far behind in the quality of their stock. But I do not think it is, because we started with the same stock as America fifty years ago, and we have made headway. It seems that the Americans have been asleep in regard to breeding from selection. I can hardly attribute their failure to that entirely, however, so I am in hopes there is something inherently wrong with the country from an ostrich-farming point of view.

4375. Suppose a smart American breeder wanted to improve his stock, could he get in one way or another good birds from here?—No, we have confined the borders. They mentioned German South-West Africa, but I promptly reminded them that that was closed also. It is the one portion of South Africa that we feared a leakage from, and we have, therefore, so to speak, affiliated with the German Government in that respect. They confine their borders, and they get our very best stock from here.

4376. They also prohibit export?—Yes, with the understanding that we let them have our stock.

4377. Is that export prohibition absolutely effective?—Yes, it has been effective. I cannot say I have ever heard of any ostrich escaping or getting through. We have been very nervous naturally, but the farmers are particularly watchful. We have heard rumours in one or two cases, but on inquiry we found there was no truth in them. We have heard wild talk of eggs being exported, but I do not think there is anything in it, because eggs are prohibited also.

4378. Then speaking as a practical man in the trade, you think the prohibition is absolutely maintained?—Yes, I think it is. So far, it is effectively maintained, that is as far as the good quality Cape bird is concerned. Americans can get birds from Northern Africa, but they are not so good as ours.

4379. Have you an ostrich stud book?—Yes.

4380. So that every bird born is tracked?—We keep track of all high-class birds. I will not say every bird.

4381. **(Mr. Campbell.)** When you referred to the price of ostrich feathers just now, you laid down the position that the price had increased in the last twenty-five or thirty years?—Yes.

4382. As a matter of fact, during the last few years there has been a considerable decline in the returns from ostrich farming, has there not?—I should say that three years ago ostrich-farming paid perhaps better than at any time in the past.

4383. Is it a fact that at any time during any not very long period the return per bird per year has fallen from ten pounds to three or two pounds?—No. There has been a considerable drop this year. Just at present we are in a slump, but we anticipate a rise later on.

4384. What is the return from average birds during the year?—I should say 3*l.* 10*s.* for good average birds. But there are birds that will give you 15*l.* and even 20*l.* each.

4385. And it will pay to farm birds at that price at present?—Yes, that would be more or less birds running on the veld. Of course, any farmer keeping birds on lucerne would keep a better class than the average. But I am taking the general average of birds throughout the country running on the veld. In the Karroo, for instance, you find hundreds of practically useless birds running on these dry tracts, and they bring the average down very much. If you said the average of birds on lucerne, I should say about 6*l.* or 7*l.*

4386. That is 4*l.* or 5*l.* a plucking?—Yes, taking the average.

4387. Is there any other kind of use to which irrigated land could be put, and which would pay as well as ostriches at present prices—dairying, for instance?—I do not know that it would pay quite as well, but I should say very nearly. With the slump that is on at present I should say there are other branches of farming that would pay as well, but when ostriches are at their height I do not think there are many classes of stock that would compare with it.

4388. But at present prices you think that dairying could compete. Do you think anything else could compete?—I should not say cereals such as wheat and rye, but lucerne as stock food would also pay very well.

4389. Is there any quantity of this land that is irrigated suitable for wheat cultivation?—Yes, but I do not think it would pay to grow wheat. It is far better to grow lucerne.

4390. Not even with a shilling a bushel duty?—No; I mean to say there are other crops that you could grow which would pay better than wheat. There are sections of this country where you can grow wheat without irrigation, and where you have to irrigate it is better to grow the better-paying crops like lucerne, or food for your stock such as turnips and rape.

4391. Is the ownership of land in this district fairly well distributed, or held in the hands of large farmers?—It is fairly well distributed, I think.

4392. **(Sir Rider Haggard.)** With all your agricultural advantages in this country I see you are still large importers of agricultural produce from oversea?—Yes.

4393. By a proper system of bringing your resources into use that could be entirely obviated, could it not?—Yes.

4394. Is it not a fact that, instead of being an importer of agricultural produce, South Africa should be a large exporter?—Yes.

4395. And, therefore, the matter is entirely one in your hands. It is not nature that is fighting against you; it is man fighting against the gifts of nature?—Well, we have to fight against nature pretty toughly in this country, but all the difficulties ought to be overcome.

4396. On the other hand there are many advantages in this country which other countries are not blessed with; for instance, your lovely climate, your soil and its fertility?—Yes.

4397. Therefore I repeat the matter is largely in your own hands?—Yes.

4398. In regard to competition in the matter of ostriches, your present competitors are America and Australia, Natal, and to those should be added German South-west Africa?—Yes, and British East Africa; also Egypt.

4399. I think that is the lot?—Yes. I think so.

4400. You told us about the disabilities of California and Arizona, but you have not satisfied yourself, I gather, about Australia?—No.

4401. I have seen ostriches in Australia, and they are apparently doing extremely well. Do you not think it is possible, if they are behind at present in their output, that it is merely owing to the lack of good stock and new ostrich blood?—Yes, that may be.

4402. I believe I am right in saying that these farms in Australia are now established at great distances from each other. Therefore, will not the ostrich stock in time become sufficiently differentiated—there being these long distances between the ostrich areas—to overcome this difficulty of the lack of new blood to which you refer?—I do not think so. I do nor think it is the lack of new blood as far as inbreeding goes that has militated against their success. We inbreed very much ourselves.

4403. Then there would probably be no reason why Australia should not in time become a great ostrich country?—No, they could breed from what they have, the same as we did.

4404. In Natal, I understand, the red soil stains the feathers?—No, it is black soil in Natal. We have red soil; it does stain the feathers if there is excessive rain.

4405. How about German South-West Africa; is that bad for ostriches?—I think it is very suitable. It is a dry climate, and on the Orange River I think ostriches should do excellently. They have wild birds there now, of course.

4406. Taking all these facts into consideration, are you not perhaps a little too optimistic about the future of the ostrich business, because there are enormous tracts in other parts of the world where ostriches could be reared and will in time be reared?—I can only take the figures in regard to past production in this country and the prices to-day. In 1870 there was only 28,795 lbs. of feathers produced.

4407. But there has been this slump you have mentioned of 50 per cent. in the price of feathers?—Yes.

4408. Do you think that the rumour, in highly civilised countries like England and America, that there is cruelty involved in the plucking of ostriches has anything to do with it?—I do not think so. I was in England just lately and I attended two meetings there. Sir Harry Johnston was chairman of one and the late Sir Walter Hely-Hutchinson of the other. We had good attendances, and I had slides showing the process of plucking and so on. It did not seem to me from what I saw that this rumour had militated much against the industry. There is, no doubt, a little in it, but I do not think it is a serious factor.

4409. You are aware, no doubt, that a good many people do take the view that there is cruelty, especially among ladies of a kindly nature who are rather indefinite as to their facts?—Well, I might just mention that at one of these meetings, immediately after it was over, two ladies came up to me and said they were very pleased to have heard there was no cruelty. They remarked that they had not bought any feathers for three years, but would buy some the next day. We are trying to dispel that notion as far as we can. We are quite alive to it, of course, and we are doing all that we can to combat it where it exists. There is an Ostrich Farmers' Association in this country, and we are working as hard as we can through the Trades Commissioner in London.

4410. I may add my belief that it has militated against the wearing of feathers among the class that buys as a rule?—I do not deny it, but I do not think it is a very serious matter. My belief is that it is dying out more than increasing.

4411. Then to what do you attribute the slump?—To the vagaries of fashion a great deal. Fashions do not always run the same. I would like to see Eastern countries taking up the feather more, Japan and China. I believe they never use feathers.

4412. Are you trying to exploit that market?—We are not doing anything actively at present, but we are considering it. We have asked the Trades Commissioner to suggest any means.

4413. There are no feathers used there now?—They are practically unused. Feathers have been sent over, however. An ostrich farmer a little while ago went over there and presented some feathers to some notabilities there. They were pleased, and the feathers were keenly taken up. We thought of sending over a present to some of the officials.

4414. Perhaps some commercial travellers in feathers might be of assistance?—Yes.

4415. **(Mr. Sinclair.)** In the available markets for your feathers there must always be a rise or fall in price dependent on fashion, must there not?—Yes.

4416. You spoke of the climate of South Africa, and this country being the home of the ostrich, as a reason why you should have the best feathers, but the policy of forbidding the export of either birds or eggs seems rather to weaken that argument, does it not?—There is nothing like being on the safe side.

4417. You are not taking any risks?—No.

4418. Australia's climate and conditions may be suitable, but you are not letting them have birds or eggs?—That is so.

4419. But still you import their rams and other stock, I understand?—Yes.

4420. Is that not rather one-sided?—There are other countries we can import from besides Australia. Why should we give away our only industry? I think we should look after ourselves; to do otherwise would be foolish. I know Australia has brought up that argument before, but I do not think they would let us have their stock unless it paid them to do so.

4421. Ostrich-farming in the past has rather put in the shade other branches of farming, has it not?—Yes. I think so.

4422. And it is being now realised, perhaps helped somewhat by the fall in the price of feathers, that general farming is a valuable asset which has not been exploited in the past?—Yes, but I would say this, had it not been for ostriches we would not have had many benefits that we possess to-day. Take fencing, for instance, we would never have been fenced to the extent we are without the ostrich. It was an undomesticated animal, and when we domesticated it we got thousands of miles of fence erected. Then the lucerne was found so paying that it has been gone in for largely, and now even if the ostrich dropped out we feel that we could step off on to something else. It has brought incalculable good to the country. It has developed industry and been of great benefit.

4423. **(Sir Jan Langerman.)** It has been put to us in this way, that if the ostrich produced 1*l.* per year it would be still more profitable than wheat-growing?—1*l.* per bird per annum?

4424. It would be still more profitable than wheat-growing?—No. I would not like to say that.

4425. You do not agree with that opinion?—No.

4426. Now, as regards the competition of Australia; of course, it is understood that they may improve their birds also, but is our industry in such a condition that it cannot be improved?—I do not say that.

4427. So that we also shall progress?—Yes, we have the lead.

4428. For many years we shall have the lead?—Yes.

4429. We are not stopping?—No, we are advancing also.

4430. You have that comfort, at all events, whatever improvement they may make we are also improving, we do not stand still?—Yes.

4431. **(Sir Alfred Bateman.)** I see that last year there was an increase of 10 per cent. in the average value of ostrich feathers exported from Port Elizabeth?—Yes, last year was a very good year.

4432. So it is only this last two or three months that the price has been low?—Yes, for three or four months.

4433. It began at the end of last year?—Yes, about the end of last year.

4434. Can you contemplate a time in which, although the fashion was rather against wearing ostrich feathers, at the same time the material conditions of the working class in Europe would enable them to use many more feathers than they do to-day—I mean feathers of the more common type, or must you have a certain proportion of superior feathers?—Yes, I cannot entirely agree with the idea of the working classes being able to purchase more feathers on account of increased wages.

4435. Would not that help you?—No.

4436. I gather you are very much in favour of the present prohibition of the export of ostriches and eggs?—Yes.

4437. You think that is quite fair?—Yes.

4438. You have a monopoly and you think you have the right to keep it?—Yes.

4439. Perhaps you are aware that we did the same thing in England in regard to machinery one hundred years ago?—Yes, but do you think you can compare the two?

4440. In England we thought that foreign countries had not got machinery and we would take good care they did not get it. Now you have the best ostriches and you will take care that Australia and other countries cannot get them?—If we let Australia enter the market for ostrich feathers we would both sink together, and what is the good of that.

4441. Then you think that there is only a limited market?—We have been told by gentlemen who have been there that there are great capabilities for ostrich-farming in other countries. We do not take it for granted that it would swamp the industry but we believe in being on the safe side. This industry is our own, and I think it is perfectly fair; the first essential is to look after ourselves, that is my opinion.

4442. Bearing in mind what I said about machinery, do you not think that in time you will come up against a brick wall?—In regard to your machinery it was different. You thought you could keep your machinery in your own country, but we do not want to keep the feathers, we are willing to sell them.

4443. In England the export of machinery was prohibited, that is true?—But in the end you exported and you found it was to your benefit. But it is hardly the same thing in our case. Here we have an industry of which we are masters. It is a real South African industry, and at the same time we can supply the rest of the world with all the feathers required at a fairly good price. Why should we let that trade go out of our hands? If everybody can do the same as we are doing the industry will be drowned at once.

4444. Could you not make up for any possible disadvantage in that direction by charging very high prices for pedigree stock, as we do in England?—We do not want to charge high prices, we are quite satisfied with reasonable prices.

4445. Do you not see the analogy in the export of pedigree stock from England to the Argentine? You may be aware that we send every year a large amount of stock to that country which brings very high prices?—It is competition which makes you do that. But you would not have the same conditions exactly in regard to ostriches.

4446. **(Chairman.)** You said that you adopted in-breeding. Do you deliberately adopt it as a means of improving the quality of your product?—Yes. If you want to fix your type you must inbreed.

4447. Close inbreeding?—Yes.

4448. How close?—We breeders do not, as a rule, like to say what we are doing, but we do breed very close occasionally.

4449. **(Mr. Campbell.)** Do you not think, as a matter of fact, that since the policy of prohibiting the export of the ostrich has been followed in this country, greater attention has been given to the subject in Australia and greater activity displayed in the direction of developing the business than was the case before you adopted the policy of prohibition?—We have always been very keen on the industry. I mean to say, the ostrich farmer in South Africa is amongst the most intelligent section of the farming community, and he has been very hard-working striving to improve his stock all the time, and I do not think that the prohibition of export has given any stimulus in this direction.

4450. No, that is not what I mean. Do you not think that the fact of your prohibiting the export of birds has drawn attention to the value of ostriches in Australia, and that during the last two or three years the activity of people over there has been much greater in consequence?—I cannot say, I have never heard that mentioned.

4451. **(Chairman.)** Have you got the world's figures of feather production?—No, only South Africa.

4452. We should be glad if you could give us a statement regarding South African feathers?—Yes. (*Statement put in as follows:—*)

Ostrich Feathers.

—	—	Value.	Average.		
	Lbs.	£	£	s.	d.
1870 -	29,825	91,229	3	1	2½
1875 -	49,569	304,933	6	3	0¼ highest.
1880 -	163,065	883,632	5	8	4½
1885 -	251,084	585,278	2	6	7¼
1888 -	259,967	347,792	1	6	9 lowest.
1890 -	212,276	563,948	2	13	1½
1895 -	353,651	527,782	1	9	10
1900 -	412,830	876,801	2	2	5½
1905 -	471,024	1,081,187	2	5	10¾
1910 -	741,148	2,272,846	3	1	3¾
1913 -	1,023,307	2,885,748	2	16	4¾

4453. **(Sir Rider Haggard.)** Did the Australian ostriches originally come from South Africa?—I believe so.

4454. Then they were exported before you had these regulations?—Yes.

4455. So you have rather shut the door after the horse has been stolen?—Yes, but you can get that class of stock from North Africa. We only confine ourselves to the high-class ostriches that we keep for breeding.

4456. They can also get them from America?—Yes, but I do not think they would get them, from what I saw. The ostriches in America are not worth anything from a feather point of view, so far as I could see.

4457. But the fact is that the ostriches are there in Australia and you have to face that competition?—Yes.

4458. And you have told us also, I think, that in-breeding does not really matter, and there is no reason why they should not produce as good a bird as you?—Quite so, I have never seen finer ostriches than those in America, they are the picture of health, but they do not produce the feathers we do.

4459. In Australia they have the cousin of the ostrich, that is the emu, and before that they had that other big bird, the moa, which is of the same race, so it would seem that the country is suitable for that class of bird?—Yes.

Mr. Fred H. Holland, member of the Ostrich Farmers' Association of Middelburg, called and examined

(*For the evidence of this witness on "Land Settlement and Irrigation,"* see *p.* 25.)

4460. **(Chairman.)** I believe you have some evidence to give us on the subject of ostriches?—I received a telegram from the Minister of Agriculture asking me to give evidence on behalf of the industry, and also a request from the Ostrich Farmers' Association of Middelburg, of which I am a member. I am an amateur farmer, my chief calling being that of a merchant in this town. One branch of our business is dealing in

feathers, and we are perhaps the principal sellers on the market here. We handle large consignments and we follow the movements of the market very closely. We have had some correspondence recently on the reasons which have operated against the sale of feathers in the markets of Europe and elsewhere, and we are told that the vagaries of fashion are the sole reasons for the slump, the fashion at the present time being for small hats trimmed with ribbons and other trimmings. I heard the question asked as to whether the fact of feathers being cheaper would result in the poorer classes wearing them more largely. Now experience generally proves that such is not the case, and that these people follow the fashions as much as the aristocracy. They wear what the aristocracy wear, and the desire to be in the fashion operates just as much in their case as with the rest of society. As far as cruelty is concerned, I agree entirely with the remarks of Mr. Evans.* I have here a copy of the Bill for the prevention of the importation of plumage which has just been read a second time in the House of Commons. A similar Bill is going through the American Legislature, and there is also one going through the French Parliament. It will be seen that ostriches are exempted, it being generally recognised that there is no cruelty. I have here a return† showing the feathers shipped from this country from 1865 to the end of December last. It is not necessary to comment on that statement in detail, but I would point out that during the past seven years, when over-production has been constantly talked of, we have had a wonderfully steady market. It will be seen that at no time during that period has the price fluctuated to the extent that it has to-day. The average price in 1912 was 2*l.* 12*s.* 6*d.* per lb. That was the lowest during the past seven years, and the highest was during 1910, when it reached 3*l.* 1*s.* 4*d.* Last year, although the production was nearly 100 per cent. greater in weight than seven years ago, you will notice that the average price was still 2*l.* 17*s.* 9*d.* per lb.

4461. What is the price to-day compared to that?—It is roughly from 30 to 40 per cent. less. We reckon that the market has dropped in the last twelve months from 30 to 40 per cent. I wish to say that I agree with Mr. Evans as to the average price of pluckings from veldt‡ birds and lucerne-fed birds. You asked Mr. Evans the average price per plucking and he told you it was roughly 3*l.* per bird for veldt birds and 6*l.* or 7*l.* for lucerne-fed birds. Well, that is about correct, and to-day they would yield roughly 30 per cent. less. There is one point which I think has been missed by the previous speakers on the question of the profits of ostrich-farming. They were asked whether ostriches could be profitably replaced by other stock. It must never be lost sight of in connection with ostrich profits that there is an extraordinary increase of stock. Now if you have a valuable stallion and a valuable mare you can only get one foal per annum, but from a good pair of ostriches you can get anything from 30 to 60 chicks, or putting it at a low estimate you may say from 20 to 40 chicks per annum. And within two years those birds may be worth individually almost as much as their parents, so it is easy to understand what large profits can be made in ostrich-farming quite apart from the production of feathers. Further, there is one great difference from a market point of view between the position when the previous crises took place and to-day, and that is that the industry is now on a much more stable basis than it was thirty or forty years ago. There are now such vast vested interests at stake both in this country and in Europe that more control is exercised than was possible in the past. And I should say that people on the other side will in time make it their business to see that feathers are once more reinstated in public favour by getting into touch with the people who set the fashions. I mean houses such as those of Paquin and Worth, of Paris, who control these things to a large extent. If they make it their business to see that ostrich feathers are written up in every ladies' journal in the world, and that feather hats are displayed freely, it will create a fashion in that direction. I may mention that the ostrich farmers of South Africa are at the present time arranging for a large exhibit at the Panama Exhibition at San Francisco, when it is proposed that exhibits both of raw feathers and manufactured goods shall be shown, besides all sorts of possible costumes suitably designed and trimmed by people of the standing I have just mentioned, and that qualified men shall be sent from this side to speak about the industry, and possibly at the close of the Exhibition that the whole exhibit will be shown in all the principal cities throughout the United States and Canada, and if their efforts meet with success it is just possible that the goods may be shown in the principal cities of Europe as well. For instance, at the present time, Russia takes very few feathers, but there is no reason why a considerable market should not be opened there. Now a good deal has been said as to the competition that we may meet with from other countries. But I would just like to point out one fact, that the exports from Northern Africa in the year 1875, which is nearly forty years ago, were 373,000*l.*, and their exports last year were only 30,000*l.* As far as the world's competition is concerned, from a market point of view we have never regarded it seriously, and we do not yet. For instance, we sell most of the British East African feathers in this market, and their output at the present time is only valued at about 2,000*l.* per annum. The whole of Australia at the present time contains only about 5,000 birds, and farmers who have been over there sheep buying, who happened to be ostrich farmers as well, have told me that the class of birds which they have over there produces a very poor feather, valued at only 2*l.* or 3*l.* per plucking. Now if such is the case, they are only producing less than one per cent. of what we produce, so they are not a serious factor. We are told that outside of Africa, the greatest number of ostriches in existence is in the Argentine Republic, where they are said to have almost as many as we have, including 30,000 South African birds.

4462. How many have you here?—Roughly three-quarters of a million. There are no reliable statistics, but that is supposed to be about the figure.

4463. **(Sir Alfred Bateman.)** They can be counted?—Yes. The magistracies, through the district police, could get information on that point. But in the Argentine the feathers are said to be worth only about 6*s.* per bird per annum, and there must be something in that, because the feathers are never exported from there to the London market, and in America all the best feathers that are used come from this country. America takes from this country directly and indirectly about 60 per cent. of our total output. Most of that

* *See* pp. 200–203.

† Return put in as follows :

Ostrich Feathers.

Year.	Weight (Lbs.).	Value.	Average Value per Lb.		
		£	£	*s.*	*d.*
1865	17,522	65,736	3	15	0
1870	28,768	87,074	3	0	6
1875	49,569	304,933	6	2	10
1880	163,065	883,632	5	8	4
1882	253,954	1,093,989	4	6	2
1885	251,084	595,278	2	6	8
1888	259,967	347,792	1	6	9
1890	212,276	563,948	2	13	2
1895	353,626	527,742	1	9	10
1900	412,830	876,800	2	2	6
1905	471,027	1,086,187	2	6	1
1906	547,697	1,406,119	2	11	4
1907	598,297	1,814,210	3	0	8
1908	637,884	1,738,389	2	14	6
1909	788,111	2,091,207	2	13	1
1910	741,148	2,272,846	3	1	4
1911	826,992	2,253,140	2	14	6
1912	999,704	2,609,638	2	12	6
1913	1,023,307	2,953,587	2	17	9

‡ *Witness's Note :*—Veldt birds signify birds that graze on natural, in contrast to artificial, pasturage.

quantity is shipped direct, but they are also very large bidders on the London market, and it is largely due to the fact that the Americans have dropped out of this market lately that our market has collapsed. The question was asked by one of the members of this Commission as to whether the red soil affected the feathers very materially. In such portions of this country as the soil is detrimental to ostrich feathers we use covers. Those covers are put on the bird towards the finish of the feather's growth and kept on, so that during the last couple of months the feather remains clean, just when it would have been long enough to trail on the ground when the birds are sitting down. I have promised to give to the members of this Commission a copy of the stud book pamphlet containing the ostrich section regulations, and I will see that this is sent along.* Special points are given for ostriches just the same as for cattle and horses. Marks are given for length, width, density, shapeliness, lustre, and strength of flue. Now, it has been our ambition for years past to produce in one feather all these qualities. There are many breeders who excel in one or other of these qualities, either in length or lustre or in other ways, but the perfect feather has not yet been produced, the feather that we are all aiming at. There are one or two other matters which I suppose would not interest you specially, such as the diseases from which the birds suffer, bars in feathers, the effects of caponizing, and so on. But in regard to the fancy prices which have been realised on this market, you may be told, for instance, that in 1912 primes fetched 115*l.* per lb., and in April 1913 primes fetched 125*l.* per lb., but I would point out that these were for a few ounces only of specially selected show bunches, and were not bought for ordinary trade purposes. Referring again to the Bill for the prohibition of the importation of plumage in England, I have received a letter from our agents, who are one of the principal firms engaged in the feather trade in London, Samuel Figgis & Co., who write as follows: "A lot of rubbish has been written in "the newspapers about this Bill, but the main factors "that will affect the ostrich feather market will be "fashion, and supply and demand; there is an ever "increasing supply, and during the past five years a "marvellous trade has been done in feathers, but it is "doubtful now if the demand can keep pace with the "supply. It can be overdone, and I am looking for that "time in the not far distant future, but as far as the "anti-plumage Bill affects the demand for feathers, "there is little or nothing in it."

4464. Is that referring to ostrich feathers?—Yes.

4465. Not to other feathers under the Bill?—No. A good deal has been said as to whether this coast belt could be used for other stock to advantage. The answer is, Yes, since dipping came into use, for whereas previous to that, we only reared about 60 per cent. of our calves per annum, we are now able to rear every one, and likewise with horse sickness. That is very rife on the coast at present, but it can be prevented by systematic dipping. My own experience may be of interest to you. I have 30 mules and horses which I used not to dip. Three months ago, when the horse sickness started, I lost two mules in a week, and then I started putting the mules and horses through the cattle dip and then stabling them closely. Since then I have not lost one. A near neighbour of mine during the same period has lost 19 out of 40.

4466. **(Mr. Sinclair.)** Did he not dip?—No. He has started doing it now. Dairying has also been referred to at length. I do not know whether it is generally known to you that since free freight was allowed on pure bred cattle this country has been almost the largest importer of pure bred cattle from the United Kingdom. I noticed that in the English Live Stock Journal it was stated that we are beginning to rival the Argentine in our imports. That country has led by a very long way in the past. Another point has been mentioned in regard to the cost of clearing land for irrigation. I have a farm which is 4 miles south of Uitenhage, which Mr. Mackay referred to,* and this farm was closely covered by bush when I went there. I have kept a record of the cost of clearing that bush and establishing lucerne. It has worked out roughly at 11*l.* per acre or 22*l.* per morgen. Those are the actual figures, and they are to be relied on, because I have compared my figures with those of other farmers.

4467. **(Mr. Campbell.)** Is that the cost of clearing the land only, or the cost of the land plus cost of irrigation plus clearing?—No, the land cost 15*l.* per morgen before doing anything. As cleared it has cost 37*l.* a morgen.

4468. **(Chairman.)** What was it worth?—If the ostrich industry keeps up, it will be worth anything up to 200*l.* per morgen. My revenue from 40 morgen of lucerne last year was 3,700*l.* gross.

4469. What was the net revenue?—It would be considerably less, probably about 1,500*l.* That is with high class ostriches, but ostrich-farming is the most expensive form of farming. I mean the management. The lucerne requires a good deal of labour. We are experimenting just now, at least, a great many farmers in the Eastern Province are, as to the advantage of mowing the lucerne instead of grazing, and feeding the lucerne to the ostriches cut up green, because we find that by grazing systematically the birds damage the lucerne to such an extent that it gets over-run with weeds and couch grass, with the result that the growth of the plants is considerably retarded. You can get a very much greater weight per annum by mowing than by grazing. I do not know whether you are interested in the figures in regard to the sales of feathers through the various markets. The export figures for the years 1912 and 1913 show that the chief volume of business passed through Port Elizabeth and Mossel Bay came next.

4470. **(Sir Rider Haggard.)** I gather that you think the ostrich industry has nothing to fear from the competition of other countries?—I am of that opinion.

4471. And therefore you do still approve of the policy of prohibition of export?—Yes. I confirm Mr. Evans's views entirely, and I may say that it is the view which is held generally by the ostrich farmers of this country on that particular point. I would fear the competition if we sent out of the country our highest-class birds. The increase is so rapid that if we sent out our finest birds to countries such as Australia, where birds are already doing well from many accounts, they would soon be able to produce almost as good feathers as we can, granted that their climatic conditions are similar to our own.

4472. Then you do not think they will be able to evolve a first-class bird themselves?—No, I do not, largely owing to the fact that I believe that most of the birds that have been sent there from this country in the past were culls. There is a vaster difference between the progeny of ostriches than any other live stock known. It is more pronounced than with poultry even. You may have a pair of high-class birds worth 400*l.* and you may get chicks worth 200*l.* apiece, and in the same clutch some chicks which would be rejected as culls, and which would only be worth 2*l.* or 3*l.* apiece.

4473. Does Australia prohibit the export of its fine breeding sheep to you?—No.

4474. I suppose you maintain that the question of friendliness between two great Dominions does not enter into the matter where business is concerned?—No. I feel that if they were of opinion that they were not serving their own ends by sending us their stock, they as shrewd business men would not encourage us to buy their stock at these fancy prices.

4475. But that is only supposition?—Yes.

4476. In regard to the matter of sickness in horses, as an old South African myself it was interesting to me to hear you talk about dipping horses for sickness. I myself in the olden days had losses from horse sickness. Has our theory been dispelled that this sickness was due to turning out the horses when the dew was

* Not reproduced.

* Question 420, page 23.

on the grass?—Yes, it is the mosquito that rises during that time. It has always been thought that if you kept the animals off the grass they would be safe, but that is not the scientific reason. Dr. Theiler investigated the subject for three years and proved that it is a mosquito-borne disease.

4477. Like malaria?—Yes. The result of Dr. Theiler's investigations will be available from the Agricultural Department. By dipping weekly a certain amount of poison is left in the skin and hairs and this is poisonous to the mosquito. Dr. Theiler proved that he could immunise mules and horses by inoculation, but about 25 per cent. died in the process, so it is better to adopt ordinary precautions such as putting them in a fly-proof stable. As our stable was not fly-proof, we dipped them also.

4478. You say you are now feeding the lucerne green to the ostriches instead of grazing them?—Yes.

4479. Is there not this advantage that you lose the manure?—No, the birds are run on bush ground that has been thoroughly cleared, and which in time will be used for ploughing up again.

4480. And you supply the deficiency with basic slag, I suppose?—Yes, but lucerne does not need manuring to the same extent as some crops because it is nitrogenous and gathers a good deal from the air.

4481. **(Mr. Sinclair.)** I gather from you that it is your opinion that the fall in the price of ostrich feathers is merely temporary and that the industry will recover in the ordinary course?—Yes, I think so when there is a change in fashion.

4482. That would mean, I take it, that ostrich-farming would continue to be a leading industry?—It is not our leading industry. The wool industry exceeds it. But it is our most profitable one per acre.

4483. Can you offer any opinion as to what would be the effect of that upon ordinary farming operations?—It will tend very largely to these areas being taken up by private individuals for ostrich-farming. People who have made money out of ostriches in the Midland District and Oudtshoorn have gone further afield and acquired river frontages, and they will go on doing so as long as the ostrich industry warrants it. Already on the banks of the river near Kakamas the ostrich industry has been established, and it will be further developed if the business warrants it.

4484. Is it the case that the irrigable land you have spoken of cannot be so profitably used for any purpose as that of ostrich-farming?—That is the general experience of ostrich farmers as a class, and they are a fairly shrewd lot. With regard to wheat-growing, the Government of this country sent two expertfarmers to Australia about twenty years ago, Messrs. Halse and Visser, and their report can be obtained from Cape Town. They came back and reported that we could never compete successfully with Australia in wheat-growing because our climatic conditions were against it, that wheat could not be grown under irrigation cheaply enough to compete with Australia, where they had a suitable rainfall. For wheat-growing the rain must come at a certain time, and with us it comes at the wrong time and intermittently.

4485. Does it follow from that that, in your opinion, the most profitable use to which this land could be put would be ostrich-farming, leaving the Union to continue as now to import largely its own food supplies?—Yes, that is my own experience. I was of opinion that I could develop a cattle and dairy industry with advantage, and I imported a dozen shorthorns of high grade milking stock, but my returns from these are a mere bagatelle compared to a similar value invested in ostriches. I may also add that among farmers, generally speaking, in the Karroo there is a standing joke that cattle are 6 per cents., sheep 10 per cents., and ostriches are 100 per cents.

4486. You told us that ostrich-farming was rather expensive?—Yes.

4487. Is a large amount of labour involved?—Well, we have to take far more trouble with the lucerne lands than with the others. We have to irrigate it twice between each cutting, and we cut it repeatedly—about six to seven times each season. Then in regard to ostriches; from the earliest age, even before the chick is hatched until it is fully grown, it requires a great deal of attention. If you incubate you have to be their foster mother, and if you pamper them too much they damp off. You have to watch them very carefully for the various diseases, such as wire worm and tape worm, and to be constantly dosing them, and you have to find clean areas for them, because if they run on foul areas they are more liable to disease; in fact, Oudtshoorn is not so good for them for that very reason. When they grow bigger, we have to watch their feather growth from day to day, and also their feeding, and have to have intelligent people to look after them. With regard to these covers for the feathers, every bird has to be caught twice a fortnight and the covers taken off, and two days afterwards they have to be caught again for these covers to be replaced. It is not a very simple matter to catch them, so that it all makes for great cost.

4488. Then it is not correct to say that ostrich-farming is a system of farming that does not employ much labour?—No. I may also mention that when I acquired this farm, one of my ambitions was to prove to myself that farming on a small area could be made to pay. My holding is only 340 acres, and when I went there, there was not enough food for two horses and two or three cows, but to-day we are running 500 ostriches, 30 mules and horses, and 40 head of cattle, and I am employing four white men and 15 coloured men, and I have only really developed one-third of that area.

4489. Can you compare the amount of labour involved in ostrich-farming with that required with other classes of farming?—I would point out that with the style of farming that I referred to just now, where you have high grade imported cattle, they require a great deal more attention than the cattle of the country; but I should say that on an intensive culture farm, with ostriches and lucerne, you would require 400 per cent. more labour than for ordinary cattle farming.

4490. Is that labour white or coloured?—It is both. There is about one white to five blacks.

4491. You told us the number of chicks that would probably be produced in a year by a pair of ostriches. What proportion of that number is reared on the average? I understand there is considerable infantile mortality?—It varies considerably. When I started I only reared from 30 to 40 per cent., but to-day I am rearing about 95 per cent.

4492. We were told the other day that only about one-third are reared?—When I started, for every 300 I raised I reared about 100, but to-day we are only hatching 100, and rearing them practically all, in preference to overstraining the capacity of ostrich hens for laying unlimited numbers of eggs.

4493. **(Sir Alfred Bateman.)** I gather that the ostrich-farming business is very lucrative, but at the same time, in view of fashion, it is rather hazardous?—Yes.

4494. The only crop we have in England to compare with it is the hop crop. It has been found that if a man has 200 acres it is better for him to put only about 30 acres under hops, and from that he may get 40*l.* an acre, or he may get nothing. Would it be possible for the ostrich industry to be more sub-divided in that way, and that where a man has 500 morgen he could put a certain amount of land under ostriches, so as to give him a sporting interest in feathers, and devote the rest of his farm to general agriculture?—Many are doing that. A number of ostrich farmers have gone in for pure bred merinos lately, and I think you will find that a slump, such as we have at present, will have a most beneficial effect on general farming in this country, and that many farmers will turn their attention to other branches of farming, out of which they may not get such high returns, but which will be far more reliable.

4495. **(Chairman.)** If the produce of a pair of ostriches is from 20 to 60 in the course of a year, why does not the number of birds in the country increase even more rapidly than is the case at present?—I think it is largely because the common birds are allowed to die out. I mentioned just now that there

was a large percentage of culls in the progeny of the finest ostriches, and at a time like this, when a man may only be getting a moderate yield, he will turn them off the lucerne lands into the veldt to do the best they can. He does not artificially feed these, and if the inferior birds manage to survive the drought, all well and good, but if not, it is no great loss. But the best birds will be carefully looked after.

4496. Compared with twenty years ago, is the quality of feather now produced better?—Yes, there is a constant improvement and greater strides are being made every year. No doubt twenty years ago there were just as perfect feathers in the individual respect as there are to-day, but in combination of various qualities we are much nearer to the ideal feather to-day than they were twenty years ago.

East London, Monday, 16th March 1914.

Mr. Carl Heinrick Bock, Jr., Wool-buyer, called and examined.

(*For the evidence of this witness on "Freights," see p. 75.*)

4497. **(Chairman.)** I think you have a knowledge of the wool trade?—Yes. I have prepared a statement.

4498. Will you please read it?—No doubt you are aware that East London has for a long time been, and is still, the chief wool-exporting centre of South Africa. I have drawn up some statistics which will prove to you the importance East London holds as a harbour in respect to the shipping of wool.

During the last ten years the exports in bales were as follows:—

1904 -	85,647	1909 -	139,561
1905 -	85,487	1910 -	139,977
1906 -	91,486	1911 -	146,141
1907 -	101,630	1912 -	165,722
1908 -	113,687	1913 -	181,139

This shows a constant increase, and you will also see that within a period of ten years the shipments of wool in bales have more than doubled. The districts coming chiefly into consideration for East London are Kaffraria, Transkei and Basutoland, Barkly and Dordrecht, and the Southern Free State. Of late we are also receiving a good few clips from Winburg and other districts north of Bloemfontein. The quality of South African wool is a very good one, and almost exclusively of the merino type. I have seen wools from the Kaffrarian and other flocks which in their washed state at home are in every respect equal to those from Australia. The importation of good Australian stud rams and sheep such as Wanganellas, has a very beneficial effect on the flocks. The majority of farmers begin to realise that if care is used in making up their clips in a good marketable manner very satisfactory prices are obtained. Some districts, however, are still working in the same old fashion, namely, in breeding heavy, undesirable wools of Vermont type, and it seems very difficult to bring home to those growers that heavy weight of fleeces is not at all to their advantage, inasmuch as the value of their wool is concerned. We are getting clips here which contain 75 per cent. of waste, and it is but obvious that buyers are very reluctant in making offers for wools in such a dangerous condition. Some successful trials have of late been made in sheep farming along the coast. Whilst thirty and more years ago East London was receiving a good quantity of wool from the near coast districts, sheep-farming had to be abolished on account of heart-water caused by ticks, which disease killed nearly all the flocks. Messrs. Cooper Nephews—the dip firm—have of late been experimenting again with sheep on their farm about 10 miles from here, and whilst at first the mortality among the sheep was largely due to the ticks, they seem to have overcome the disease by now, and in exhibiting their wool, which was clean and of good quality, obtained the satisfactory price of 8*d.* per lb. It is to be hoped that the good results may continue, and that we can look forward to a substantial increase of wool from the coast again. During the last decade, users of South African wool in Europe have found it more to their advantage in establishing their own buying offices in South Africa, whilst up to then the grower was to a great extent dependent upon the prices obtained at the regular wool sales in London. It is but natural that these representatives are nearly always in a position to offer a higher price respectively than would be obtainable in London, where heavy dock and extra heavy warehousing charges are in evidence. That these buyers are able to easily absorb the whole of the South African clip is clearly shown by the present state of affairs, where nearly at the close of the season, with the exception of the offerings at to-day's public auction, barely 500 bales are carried in stock, whilst similar conditions prevail at the other coast ports. The outlook for sheep-farming in general must be considered as a very promising one for South Africa, and with Australia, according to the "Wool Record," being now nearly fully stocked with sheep, and South America decreasing its export of wool, on account of the vast lands being more and more turned into cattle camps and used for agricultural purposes, it may rightly be hoped that South Africa in years to come may be in the first rank among chief wool-producing countries of the world.

4499. **(Sir Rider Haggard.)** You say there is every reason to hope that South Africa may become one of the chief wool-producing countries in the world. I suppose you are bearing in mind the enormous output from Australia?—Yes.

4500. And you think that South Africa has a prospect of competing with Australia?—Yes.

4501. What is the difference in the output at present?—We export from South Africa at present about 400,000 bales.

4502. And Australia? — I should say about 2½ million. But you must bear in mind that South African bales are heavier. In pounds they are much nearer the Australian mark than in bales.

4503. You really consider that the wool prospects of this country are hopeful, and that it may, in a measurable time, compete with Australia in regard to its output of wool?—Yes.

4504. How will you do that with your present population?—The population has to be increased.

4505. So, when you say that, you mean provided there is an adequate population to produce the wool?—Yes.

4506. So it comes down to a matter of population?—Yes, on the whole. But in years to come we shall compete successfully with Australia. I mean to say, we have the lands, we have the soil, and we have the climate which can produce good sheep and good wool.

4507. All you want are the men and the sheep?—Yes.

4508. **(Mr. Campbell.)** On what ground do you base your statement that Australia has now reached its maximum production of wool?—That is according to a report in a Bradford wool paper.

4509. And there is no more possibility of an extension of the sheep-raising industry?—No. They say that Australia is now nearly fully stocked with sheep for wool-breeding purposes, and that they are using all the land available.

4510. You spoke about improving the quality of the wool clip and its value in regard to the wool industry. What has been the cause of the better attention paid by the small farmers to the get up of their

clips?—The establishment of auctions at the coast has had a lot to do with it I should say. Up to 1908 all wools were sold privately, but since then auctions have been started and they have proved a big success.

4511. Is there any means in this district of giving the farmers instruction as to the get-up of the clip?—They have Government experts here.

4512. Do they travel round?—Yes.

4513. Do they give practical demonstrations?—Yes.

4514. And is that an effective means of instruction?—Yes.

4515. And, generally speaking, would you say that the majority of the farmers fall in with the idea of getting up their clips better?—I would not say the majority. The progressive farmers naturally do so, but we have a lot of backveld farmers in this district and further along who will not hear about getting up their wool in a marketable manner. They go on in the same style. Their idea is to breed heavy wool. They seem to think that all they want is heavy fleeces.

4516. And I suppose that in addition to depreciating the value of their own wool they damage the reputation of South African wool generally?—Yes.

4517. So one of the great reforms that is needed in South Africa is better education of the farmer in the production of his wool and in getting it up for market?—Yes.

4518. In regard to the wholesale houses you speak of who have established agencies here for wool buying, what class of house is it that does that?—The Woollen Mills.

4519. Is the system of central auctions for selling the wool the same as in Australia, where great wool sales are held in each capital city once a year?—No, we have only these at the coast.

4520. Do you not think that the establishment of these auction sales at other centres also would be of benefit to the industry and to the country as a whole?—No, I do not think so. As the wool has to come down to the coast to be shipped in any case, I think they would find it much better to have the sales here, where there is more competition and where all the buyers are. We in East London have more buyers of South African wool than there are buyers in London for South African wool.

4521. What class of wool is it that you produce, fine or coarse wool?—It is almost exclusively of the merino type.

4522. Cross breds?—No, only a few bales.

4523. It is the Australian merino strain?—Yes.

4524. And you get the stud stock from Australia?—Yes.

4525. Is it the general experience that the strain of sheep which comes from Australia keep up the quality of their wool in South Africa?—Yes.

4526. Would you say they simply held their own or that the wool improves?—I should say they hold their own.

4527. There is no improvement?—No.

4528. I suppose that stud breeding is not known here?—Not greatly known, but we have the more progressive farmers who are going in for it.

4529. And you think that stud breeding will be an increasing factor here?—Yes.

4530. And that will tend to create a class of sheep better suited possibly for South African conditions than you can get by importing your stud stock?—Yes.

4531. **(Mr. Sinclair.)** Is there any tendency for the wool to go back in quality unless it is reinforced?—I do not think so. We do not import any cross-bred sheep for stud purposes. Only merino types, and I do not see any reason why the wool should go back.

4532. I suppose that in the time of which you can speak there have been material improvements in the quality of the wool produced here?—Yes.

4533. Have you any difficulty here in regard to your shearing?—I do not think so.

4534. Who does it?—The natives. They go from farm to farm.

4535. Can you tell us anything about the sheep themselves apart from the wool? I think you have about 35 million sheep in the Union?—Yes.

4536. You have not sent many of them away in the shape of frozen mutton?—No.

4537. Can you tell us why that is?—I should think it pays the farmer better to grow wool, with the exception of the very cross bred type. But even the wool of those sheep fetches a tremendous price, so it pays better to go in for wool-growing.

4538. Is it a factor that the areas of land here are so large that the sheep are kept back for stocking them?—I have not heard.

4539. Are the facilities for bringing wool to your ports reasonably good?—Yes.

4540. Have you anything to complain of in that direction?—No.

4541. Do foreign buyers, apart from local representatives, come here to compete at your wool sales?—Yes.

4542. American buyers are represented?—No, not yet, but with the abolition of the tax on wool they are bound to come. But we have German and French buyers in large numbers.

4543. Under the old conditions, before the alteration in the tariff, it was in the finer classes of wools that American buyers bought from the Colonies?—Yes.

4544. And you have not supplied any parts of their purchases in the past in regard to that quality of wool?—I have.

4545. They have already bought?—Yes.

4546. Did they buy through agents?—They bought through European houses.

4547. Whose agents were here?—Yes.

4548. **(Mr. Campbell.)** What is the average clip for fine sheep?—It varies. In Kaffraria it is from 5 to 8 lbs. In Dordrecht and Barkly and Aliwal it goes up to 12 lbs.

4549. What is the price of South African wool compared with Australian wool?—It varies. At the East London sales the hoggets of a special clip fetched 13*d*.

4550. While at the Australian sales wool of the same class was selling at what?—I should say about 14*d*. or 15*d*. That is only on account of the lighter condition and higher yield, not so much on account of quality.

Mr. R. H. F. Dumaresq, representing Messrs. William Cooper and Nephews, Dip Manufacturers, called and examined.

4551. **(Chairman.)** Will you tell us about the various dips which Messrs. Cooper have introduced into this country and their effect?—We have only introduced as an entirely new dip the cattle dip. This is an arsenical dip which we perfected two years ago, and nine years ago we bought a farm about 10 miles away from here with a view to proving that what had hitherto been a failure, farming cattle on the coastal belt, might today be made a practical success. I suppose that five or six years ago we could not rear 10 to 20 per cent. of our calves, but to-day we lose hardly one and at the recent show I was able to put on a pen of lambs born on the coast, 20 or 25 merinos, from our small flock in which we now suffer no loss from heart-water, which was a complaint very bad here a few years ago. That is a result which I do not think has been attained here for fifty years. Now, I think, we have made farming on the coast a practicable proposition by eradicating the ticks, and the proof of this is the big jump in land values which has taken place.

4552. You consider that the jump in land values has been due largely to the knowledge that the risk from these diseases is now much less than it was

formerly?—Yes, to the fact that you can eradicate these diseases by dipping and destroying the ticks. Dr. Theiler says that 80 per cent. of the diseases of cattle in this country are tick-borne diseases.

4553. Are you in competition with other firms?—Yes, we have the usual number of competitors.

4554. **(Mr. Bowring.)** Does your dip kill the ticks or merely prevent them from attacking the animal?—It kills them. The idea of a cattle dip is to be non-protective, so that you, as it were, mop up by successive dippings all the ticks in the neighbourhood. We are now dipping every four days. Five hundred head go through every four days. We have East Coast fever in the district now, otherwise we would not dip except once a week or once a fortnight.

4555. **(Sir Rider Haggard.)** What is the cost of this dipping per beast?—From memory I cannot tell you exactly, but according to the interval, I think I am right in saying that for a three or four day interval it will cost you, roughly, 10*d.* a head per annum, and for a fortnightly dipping 4½*d.* per head per annum.

4556. Is it done with a tank or by spraying?—With a tank. They go in very readily. After a time you cannot check them.

4557. Is that because they like it, because it frees them from a torment?—I do not know.

4558. Do you believe that you will by degrees catch all the ticks and kill them?—I consider so.

4559. And that you will eventually mop up the entire tick population of the neighbourhood?—Yes.

4560. After dipping, the animals go out and catch more ticks and they are killed, and so the ticks become scarcer and scarcer?—Yes.

4561. If they catch more ticks when they go out, why do not those ticks give them the disease?—They are not pathogenic. There are so many different kinds of tick. The heart-water tick is the bont tick.

4562. If they catch more ticks, why do not those ticks give them more disease?—Because the tick has not got the disease into its system. The function of the tick is to propagate the disease. The disease is carried from one diseased animal to another by means of the tick.

4563. **(Mr. Campbell.)** It carries the disease from a diseased animal to a healthy animal?—Yes.

4564. **(Sir Rider Haggard.)** I understand that the tick is the host of the disease?—Yes.

4565. If you get your cattle clear, the tick cannot get the disease, and cannot give it to another animal?—Quite so, and you also lose your immunity. Our farm used to be a red-water farm. I will give you an instance. A boy of ours took as pay four young bullocks from the farm, and brought them to East London, near Amalinda, and they all died of red-water. That shows that since we have stamped out every red-water tick, we can no longer say that our animals are immune from red-water.

4566. Therefore you are running that risk, with all your advantages and with all this dipping, that you lose this immunity which cattle have from salting or otherwise?—Yes, in a sense we do, but we hope that in the end the results will be far more satisfactory from the dipping.

4567. Is it a fact that mosquitoes have something to do with these diseases as well as ticks?—They undoubtedly have something to do with blue-tongue and horse-sickness.

4568. And this dipping has the same result?—No. I should say it helps to some extent, but I think that for the mosquito that carries horse-sickness there is nothing certain but stables with mosquito-proof netting.

4569. The net result is, in your experience, that this dipping is bringing about a totally different state of affairs with reference to the breeding of live stock?—Absolutely.

4570. And a country which was before practically impossible in that respect is becoming a very good and useful cattle country and very suitable for the rearing of all animals?—Yes.

Major-General Sir EDWARD YEWD BRABANT, K.C.B., C.M.G., called and examined.

(*For the evidence of this witness on "Land Settlement" and "Cotton,"* see *pp.* 26 *and* 279.)

4571. **(Chairman.)** You have been kind enough to come here and give us evidence in regard to the agricultural development of this district. Will you please tell the Commission the salient points?—I have been here for about forty-four years. After I left the Army I came here and settled down, and there has been a very great change since then. When I settled here first of all you could keep sheep on the coast during the winter. The farmers up-country brought their sheep down here to keep them during the winter, and then the disease known as heart-water broke out and they had to give up sheep farming; but now, since East Coast fever came amongst us, we have discovered that dipping for East Coast fever has got rid of the ticks to a great extent that affected sheep, so that you can now not only keep sheep in winter in this district, but all the year round, which must mean a very great development in the district in the immediate future. With regard to cattle, the same thing applies. For many years we could not keep cattle satisfactorily. We could not rear calves in large numbers. One disease especially, known as liver disease, caused us a great deal of trouble, and the Veterinary Department struggled with it for years trying to find a remedy. Directly we tried dipping for East Coast fever the other disease disappeared, and we find that a great part of our diseases now disappear when you regularly dip. They were all tick-born diseases. In regard to agriculture, the difficulty was this, it was so easy to make a living in this district by keeping 200 head of cattle that nobody would trouble about it as a rule. You have a great difficulty in getting progress made in that respect.

4572. **(Mr. Sinclair.)** You told us that it had been so easy to make a livelihood with a few cattle that the people have not bothered to go in for agriculture. Is it not the case generally, that the conditions have been so favourable under which settlers have been able to make money by ostrich-farming or cattle-farming, that the point of wrestling with the land of South Africa has never been reached?—That is quite so.

4573. And when that problem comes to be seriously tackled, it follows, does it not, that there must be a great development in the products of the Union from its lands?—Undoubtedly. There are immense possibilities. I am not speaking about the up-country districts, because I do not know so much about them, and it is a different class of land altogether. But along the coastal districts there are immense possibilities of development.

4574. Strenuous farming does not seem to have been seriously undertaken?—Very little.

4575. Is the trend now in that direction?—To some extent. I know a farmer who is a most strenuous worker and he has turned what appeared to be almost valueless land into most valuable land and is getting great crops of mealies.

4576. Do you know the land through which we travelled yesterday in approaching East London, the land we passed through during the whole of yesterday forenoon?—Yes.

4577. Can you give the Commission your opinion as to the capacity of that land? It seemed to us to be rich red land; is it land that, given water, will grow crops?—Yes. You do not want irrigation about here. In the Bedford district, I believe, they do irrigate to a certain extent, and it is looked upon as one of the best districts in the Colony. When you reach King Williams Town, you get the red loam which is capable of high cultivation.

4578. And none of that land, broadly speaking, is under cultivation now. It is used for grazing purposes,

no doubt, but very little of it visible from the railway line is under cultivation?—If you are speaking of the Bedford district, there are most valuable sheep farms there; the Bedford district is one of the best in the Colony.

4579. You think that all that land is suitable for agriculture?—Yes, a great deal of it.

4580. **(Mr. Bowring.)** Is that land to which Mr. Sinclair has referred farmed mostly by Kaffirs?—There is a large kaffir location about 10 or 15 miles from King Williams Town, called Debe Nek, but there is also a large number of small German farmers.

4581. These Kaffir kraals are simply where the labourers live, are they?—No, not all. There is a large native location at Debe Nek, but in the Bedford district there are no native locations at all. They are entirely European farms. And at Middle Drift you came to a native location, but most of the country, three-quarters of it I should think, is under European occupation.

4582. The Kaffir huts are where the labourers live?—Yes.

4583. **(Sir Rider Haggard.)** Have you farmed here yourself?—Yes, for thirty years in this neighbourhood—the farm now belonging to Coopers—the Dip people.

4584. In those days you had to contend with all these diseases?—Yes.

4585. And suffered from them?—Yes.

4586. All the cattle are dipped now, are they not?—Yes, everything.

4587. How often?—It depends. Once in seven days in most districts. In an infected area, once in five days, and on farms actually attacked by the disease, once in three days.

4588. Are you talking of cattle or sheep?—Cattle.

4589. Are sheep dipped?—No, not regularly. You cannot dip them very often.

4590. You dip them for scab, do you not?—Yes, but that is only twice a year, as a rule. In the Komgha District farmers have told me that they find, if they dip them once a month, it is as much as they will bear, and sufficient to destroy the ticks.

4591. Then they are dipped once a month?—Where they are in large numbers, but down here it is only recently that we have taken to keeping sheep, and in small lots at present.

4592. But there is a prospect now that even in these coastal districts all stock will be rendered quite healthy?—Yes.

4593. Whereas some of us have reason to know that in the past there was no more hazardous occupation than trying to keep stock in South Africa?—Yes.

4594. Therefore, the whole outlook for agriculture has been changed by the discovery of the strange efficacy of dipping?—Yes.

4595. Because you tell us that all these diseases were tick-borne?—Yes.

4596. Is it not a fact that they are also mosquito-borne—some of them?—Not here, I think.

4597. Horse sickness?—We suffer very little here from that.

4598. Well, the dipping is efficacious against both tick and mosquito?—Against the tick, certainly. I do not know about the mosquito.

4599. Therefore, the whole outlook in your district has been changed by this discovery?—Yes, and in many others.

4600. Which has actually come into use during the last five years or so?—Yes. The East Coast Fever has been a blessing in disguise really.

4601. **(Mr. Campbell.)** You say that dipping is of vast importance to success with stock?—Yes.

4602. Is it made compulsory by regulation?—Yes.

4603. By regulation by the Union Parliament?—Yes.

4604. How is that enforced?—In the first place, you cannot keep cattle at all unless you have a dip on your farm or have access to one.

4605. How does the Government know that the farmer uses it?—The police inspect the farm, and if the farmer has broken the regulations, he is brought before the magistrate.

4606. Is the regulation strictly enforced?—Yes. Part of the district is actually infected at the present time, and that is under the Veterinary Department. They watch very carefully and confine the disease to one locality as far as they can.

4607. Such districts are segregated?—Yes.

4608. In reply to Mr. Bowring, you spoke of a large Kaffir settlement between here and King Williams Town?—Between King Williams Town and Alice.

4609. We noticed these Kaffir huts all along the line side?—That would be the Debe Flats, and Middle Drift, where you crossed the Keiskama.

4610. And Blaney Junction?—No, there is no native location near Blaney Junction, and none near King Williams Town till you get 10 miles out. There are, however, large native locations in the district of East London.

4611. Are those natives employed on white farms?—No, on the locations. They are on their own land.

4612. But they do come to work on white farms?—Yes. The farms have to give their servants land.

Kimberley, Wednesday, 18th March 1914.

Mr. A. R. Radloff, Jr., called and examined.

(*For the evidence of this witness on "Artesian Water,"* see *p.* 32.)

4613. **(Chairman.)** One of the points on which you desire to give evidence is horse-breeding, I think?—Yes. Our great difficulty in regard to horse-breeding at present is that there is a slump in the market for horses. We have been breeding for a good many years, and we want to get into touch with the Imperial Government to see if we can come to some arrangements whereby our breed of horses can be made use of for army purposes.

4614. For India?—For India, and also as remounts.

4615. In England or in India?—Both.

4616. What type of horse are you breeding?—Everybody is breeding a different type of horse. They are mostly breeding the thoroughbred.

4617. For what purposes?—As a utility horse.

4618. That has been a failure, has it?—Not directly. As we know, in the late war the Colonial horse had the stamina, and we can breed the particular horse that is required, if there is a possibility of getting into the market.

4619. What stock are you breeding from at present?—We started, in the early days with a horse called the "Hantam," from the Colesberg District. Its points were hardiness, good hoof, and splendid stamina, and then we always built up the stock by importing different sires. Then we went to thoroughbreds, and after that there was the hackney type and the Cleveland, and so everybody has been breeding the type of horse which he fancied himself. There has been no common object for which all have been breeding. We have been working in the dark, more or less.

4620. Has the Breeders' Association been in communication with the Remount Authorities, either in England or in India?—Not that I can tell you of.

4621. **(Mr. Garnett.)** Can you tell us whether at any time this Province supplied a number of remounts to the Indian Government?—Yes, in the early days. One of my neighbours told me that his father was commissioned to buy remounts for the Indian Army, and in those days they did a great trade with the Indian Government, and now we have lost that trade, and it has gone to Australia.

4622. Can you tell me what their standard was as regards height?—A horse, about 15 hands, or 14·2; in some few odd cases, above that.

4623. I think their standard is above that now?—Yes.

4624. I think the standard is about 15·2 now. If you want to breed a horse up to that standard, it will be difficult for you to get back into that business, will it not?—That is why we have been lately breeding from heavier sires.

4625. Do you prefer to have size in your sire, or in your dam?—We prefer it in the dam, but to get that size we have to employ the heavy sire.

4626. The usual type of native horse, apart from the imported heavy sire, is rather a blood type?—Yes.

4627. And exceedingly hardy?—Yes.

4628. If you can but improve the size, and get them up to 15·2, and weigh half a ton, and measure 8 inches below the knee, you may look forward to good business. But do you see any prospect?—I think we can look forward to obtaining it.

4629. May I put it this way: I should imagine that what the Government will want will probably be a three-quarters or seven-eighths horse with substance?—Yes.

4630. What is your opinion as to getting that by importing hackneys?—We have finished with hackneys. We are against that breed.

4631. Are you laying yourselves out to improve the breed of your horse, so as to enter into competition with Australia for the remount business?—We are open to do so.

4632. You are trying?—Yes.

4633. What steps are you taking?—The breeders have imported a heavier type of horse, and also Clydesdales. But I should say the Oldenburg is gaining more ground than the others.

4634. Is it of the East Prussian type, which approximates to a blood horse, a heavier breed?—It is heavier. It is next to the Clydesdale, I should say.

4635. Are the breeders, generally, in the country satisfied with that particular way of breeding—that is from the heavy sire to the better bred dam, as the better way of getting what you want, or are you in the experimental stage?—We are in the experimental stage. We have not had the proper assistance yet. Every man is following his own head.

4636. And everything has been done on no system?—Yes.

4637. And you are going to get something like a horse without either name or nation?—Yes.

4638. I should say that is a hazardous way of attempting to get back into the Indian market?—Well, with the class we have, we are open to compete against anybody else, as far as that particular standard for endurance goes, especially. We want to know if we cannot have a certain market for the future. What is to become of the horse in the future?

4639. Have you been at it long enough to test the relative stamina of your crossbreeds with your indigenous horses?—Yes, our experience has now extended to about thirty years in the horse-breeding business, and we have got to a standard class of mare 15 hands to 15¾, and we have in the meantime also bred a smaller class of horse. I may mention that naturally our conditions and climate tell greatly on our horses. We do not go in very much for artificial feeding. That is the drawback. Our horses have to follow the natural course, and when you have had several years of drought, the horses deteriorate in size, but the stamina remains. The height and size of these horses certainly diminishes by these successive droughts.

4640. What I wanted to get at was this. As the result of this cross breeding with your imported horses, can they go through as hard a day, and have they the same endurance as, say, your own uncrossed horses or ponies of 14·2 hands?—We find that when we increase the size the endurance is diminished.

4641. At present the nett result of your increase of size is to deteriorate your breed?—Yes, as far as stamina goes.

4642. Have you thought of any other method of importing blood horses, importing large roomy blood mares to scatter their progeny about the country and increase the size in that way?—The matter of importing mares should, I think, rather be left with the man who has a good financial basis, but the system we have adopted was rather to build up the type of horse to a greater size, because it was only the local market that we were breeding for. About ten years ago the market demanded large horses. We bred them, and then later on the market wanted smaller horses with more stamina. These we bred also, and to-day the demand is for a large horse again. So it is the local market that has interfered with systematic breeding.

4643. But so far, your experiments in getting size have been entirely at the expense of stamina and endurance?—Yes.

4644. So it is quite plain that other steps will have to be taken if you are to enter into competition with the world's markets?—Yes.

4645. Has the Government any stud farm?—Yes, but unfortunately they are abolishing one in the near future in the Free State.*

4646. Does the Government import sires or own sires for the use of the horse-breeding community?—The past system, especially in the Transvaal and Free State, has been that they have imported sires and had their own stud farms, and those sires have been leased to owners in those Provinces. We, in the Cape Province, have been neglected more than in the Free State and the Transvaal, but during this last season we have had the sires distributed more generally.

4647. But yet you have not done anything in the way of importing brood mares—large thoroughbred brood mares?—No. In a few cases private owners have done so.

4648. Because one would rather think that would be a potent way of increasing the size without losing the stamina?—Yes.

4649. **(Sir Rider Haggard.)** I have been talking about horses with some gentlemen here and they seem to think that a suitable cavalry remount horse can be reared here to pay at from 30*l.* to 35*l.*?—Yes.

4650. And what do you estimate the cost of landing that horse in England would be?—I do not know.

4651. They seem to think also that any number of horses can be bred in this country?—Speaking of our national resources in that respect, I may mention that this district is specially suitable for breeding horses. We have practically no diseases, the chief disease in this country is horse sickness, and we have not to contend with that in this part of the country. At odd times we do have cases, but the cases are so few that horse-breeding is a profitable concern if carried out properly.

4652. Not only here, but in the Orange Free State and in the Transvaal. The Wakkerstroom District I am told, is one where horses can be bred very satisfactorily?—It depends on the style and class of horse you want. We find that if you have a sandy soil the hoof of your horses is inclined to spread out, and become flat, but where you have mixed veldt, the hoof develops better, and you get a hardier hoof. A foal on hard veldt has a better quality of hoof than a sand veldt horse.

4653. Is there a large area of suitable veldt for breeding good and useful cavalry horses in this country?—I should say so.

4654. And the gentlemen I was speaking to estimated that you could turn out here in this district† alone from 20,000 to 25,000. Do you support that estimate?—Yes. For instance, we are ourselves at

* Witness's Note:—I have just ascertained that another is to be abolished.—29 March 1914.

† Griqualand West.

present breeding our stock of mixed horses running to about 210. That is one private individual. There are others who are breeding perhaps more than that—up to 300 and 400.

4655. I mean to say, could the stock be increased so that the district could produce, say, 20,000 horses a year?—I have not gone into probable numerical results.

4656. Could a large number be produced?—Yes.

4657. Because when you are asking the Government to charter ships, there must be the supply available?—Yes.

4658. If that is so in your district*, in the other districts you are acquainted with in the Transvaal and Free State, could a large number more be produced?—Yes.

4659. If there were a satisfactory market?—Yes.

4660. Are you of opinion that a horse suitable for cavalry remount purposes can be bred here?—Yes, I should say so.

4661. Do you think that those horses, if bred here and taken to England, would stand the English climate?—Yes.

4662. Do you think there is here a great ground for breeding horses for army purposes for use in England and also in India?—Yes.

4663. And in that way a constant supply of remounts could be assured if the matter were taken up on the proper lines?—Yes.

4664. And with proper precautions as to the sires used and the stock of mares?—Yes.

4665. **(Chairman.)** You say that the Government has now stallions?—Yes, they have their own stud farms, and they have been breeding their own horses and these young horses have been offered periodically at public auctions, whereby private farmers are able to buy the horses they fancy.

4666. What is the origin of these Government stallions; are they country-bred?—No, mostly imported.

4667. What type of horse?—Mostly the thoroughbred type. That has predominated. About seven-eighths last year were thoroughbred.

4668. Bought in England?—Yes.

4669. And they stand at what figure?—It depends on the quality of the horse. The stud fees were various—ranging from 30*l.* to 50*l.* in the catalogue.

* Griqualand West.

4670. What is your opinion of the horses which the Government provide in that way? Are they suitable to the country and suitable to the reproduction of the type of horse you want?—As far as our past experience has been, speaking of twenty years back, when our Government imported some sires, some of them certainly did not prove very successful. But I should say that the type of horse which our Government is now importing is a very suitable type.

4671. **(Sir Jan Langerman.)** In times gone by, South Africa used to supply remounts to India you say?—Yes.

4672. On a large scale?—Yes.

4673. The type of horse required for India is not the type required for the United Kingdom, for instance?—No.

4674. You must have a smaller horse for the Indian requirements, I understand?—Yes, the type of horse is certainly somewhat smaller and also hardier. It must have plenty of stamina, and our horses have those qualities.

4675. You are of opinion that you could breed both types of horse here successfully and in large numbers?—Yes, I feel convinced of it. What we want, however, is a certain outlet for our horses. We can easily meet the demand.

4676. Do you know whether the Government has taken any steps to recover the Indian market for South African horses?—I am afraid the steps they have taken, if they have taken any at all, are very visionary. I do not think that any very serious attempts have been made to recover this trade, which was quite considerable at one time, so I understand.

4677. We had the market in the past, and we have allowed Australia to take it away; is that the position?—Yes. Australia supplies the bulk of the remounts now, I understand.

4678. And you think that with judicious handling we could recover the market again?—Yes. We see no reason why not. That is what we are agitating for now.

4679. **(Sir Rider Haggard.)** Can you breed horses fitted to draw guns? You know the style of horse, the heavier type?—Yes, I think so.

4680. What do you use for that purpose, Percherons and Clydesdales?—Percherons and Oldenburgs.

ORANGE FREE STATE.

Bloemfontein, Friday, 20th March 1914.

Mr. S. E. GASSON called and examined.

4681. **(Chairman.)** You are interested in wool?—Yes.

4682. Will you kindly tell the Commission the points which in your mind are important in regard to this subject of wool-growing. I believe the principal point was the method by which wool was purchased from the farmers. It has been said that previously it was purchased without regard to quality?—As long as I have known the Free State it has always been purchased according to quality. In Bloemfontein it has always been purchased on its merits. In years gone by I daresay that the practice of buying wool without regard to quality was too prevalent, and no doubt it exists to-day in some of the outlying districts where people have very little knowledge of the article. But competition being so keen, and the article now being sold on its merits in the larger, I will not say only the largest, centres, the farmers who have good wool invariably send it along to those centres. The farmers realise that wool is now being purchased on its merits, and consequently they are going in for a higher class of sheep. They are going in for imported sheep and different people are endeavouring to improve the rams. Personally I have imported a lot of stud ewes and stud rams in order to be able to give the farmers a better class of ram to improve the quality of the flocks and at a reasonable figure. The smaller farmers cannot afford to import sheep, and, of course, that has kept them back for many years. The high prices ruling possibly prevented them from making the forward and progressive steps that otherwise they would have made. But that idea that wool is not purchased on its merits is entirely wrong.

4683. As a matter of fact, is the quality of wool now produced in the Free State rapidly improving?—Yes, it is rapidly improving. The improvement since the termination of the war has been most marked.

4684. Has the industry been much affected by the recent drought?—Well, of course, in the Cape Colony the drought has not been so severe, in fact they have had very good rains, and as far as I have been able to gather from the coast houses the wools are arriving in excellent condition. Speaking for this district the wool has suffered severely.

4685. Do you advocate any special measures for the more rapid improvement of the quality or quantity of the wool?—I do not know. I think all the farmers, at any rate the progressive farmers, realise that the more wool they can make their sheep carry the better it is for their pockets, and they also realise that wool suitable for the ordinary trade is necessary, and under those circumstances they are taking measures not only to improve the wool, but also to improve the method of handling the wool, so that it should be in a marketable condition. For instance, in years gone by, they were in the habit of running their coarse Persian sheep along with the merinos, and the consequence was that some of the hairs of the Persian sheep got into the merino wool, and when the wool arrived home, and it was dyed by the manufactnrers, there were marks in the fabric caused by these white hairs which would not take the dye. In consequence of this South African wools got a bad name, but we may say that that is almost a thing of the past. At the present time Cape tops are realising as large a price and even more than Australian tops.

4686. **(Sir Jan Langerman.)** What is your experience in the Free State?—My experience extends from 1891. I came here at the time the railway was made.

4687. Since you came here has there been a marked increase in the value of wool in the staple and in the length and in every other respect?—The wools have improved considerably. The quality all round is very much better, in fact we have nothing to be ashamed of.

4688. And also the class of sheep?—Certainly.

4689. How does it compare with the Transvaal and the Cape Colony?—Of course, you must take the different districts separately; out west it is very difficult for them in that very dry sandy part of the country to produce a wool of a character to compare with the wools that can be grown down in Kaffraria, in fact we cannot do it. The heat is so great that the wools become dry at the points. You have doubtless learned that in going round the country, that the finest wools are produced in the Eastern Province and in Kaffraria. Those clips compare, I may say, very favourably with Australian clips of same count.

4690. How does it compare with Karroo veldt sheep and grass veldt sheep?—My experience is that where you rear them on grass the wool will naturally show less dust, and, if you wish to know the price per lb. in the grease, they are lighter, and the waste is not so great. Consequently, although the wool may not be worth any more in the top, nevertheless in the grease it is worth considerably more, because there is less wastage. That is the position.

4691. In regard to the Free State, which you are familiar with, is there much room for expansion in the sheep-raising industry?—I should think they could increase their numbers considerably, especially if they did away with a number of cattle. Now, it is rather departing from the question of wool, but I may tell you that I am not only interested in wool, but, I suppose, as an amateur farmer, I am fairly interested in cattle. I am interested in the growing of wool on a fairly large scale as well as the raising of cattle. Well, I have come to the conclusion, in fact, I spoke to one of my partners just recently, and said that I felt that with the dry times we were getting now this portion of the Free State is more adapted to sheep than cattle. A sheep can do with short pasturage, whereas you want length of grass for cattle. I also go in for imported cattle. I run about 8,000 sheep.

4692. Are you obliged to trek with your sheep in the Free State?—I shall have to do so, I am afraid, owing to the drought.

4693. Would you have to do so in a normal year?—No, the less the sheep are moved the better.

4694. It is not the same as on the high veldt in the Transvaal?—No.

4695. What is the number of sheep in the Free State?—I cannot tell you.

4696. You think it is capable of considerable increase?—I think so. I have not had any time to get figures, but I can easily obtain them for you. The loss this year, you may take for granted, will be rather severe in this part of the country. I have one property which is over 6,000 morgen, or nearly 20 square miles, and I do not think there will be any veldt to carry a single animal.

4697. You say you started in 1891. When did you start wool-growing?—Not until after the war.

4698. For ten years, say?—Yes.

4699. Taking the price of wool ten years ago and now, what is the difference? I want to see how the sheep have improved during that time?—You cannot take it in that way. Take, for instance, the years 1899 and 1900. You will probably remember that the prices of wool soared up to a great height and then there was a collapse, several suicides occurred, men were ruined, and prices fell pence per pound in a few months. So you get a sudden rise and fall. I do not see that the price has anything to do with it.

4700. But still the fleece of the sheep to-day all over South Africa is more valuable because of the introduction of better rams?—If you were to say that the sheep of to-day, compared with the sheep of the Free State fifteen years ago, have gradually improved I should say you would be perfectly correct. I suppose there has been an improvement in the weight of the fleeces, take it all round, at least 1½ lb. per sheep, and I suppose there has been an improvement in the quality, taken all round, of 1*d*. per lb. That is my own impression.

4701. That shows the improvement that has been made in sheep-breeding?—Yes, and also in the methods of handling the wool. Unfortunately, in the former days the farmers thought the correct thing was to throw everything into the bales, including stones and dirt, but to-day they realise that it is wool that is required and nothing else, and that if they put anything else in the bales they will have to pay freight and railage and home charges upon that dirt and rubbish.

4702. How have you brought up your fleeces during the last ten years in weight?—Of course, it would have been interesting to show you some of the skins so that you could see the difference. Fleeces are improved by putting the rams which are carrying the necessary fleeces to the ordinary sheep and gradually working them up year after year. You may have density and require length, then you will have to get a ram which is fairly dense but has good length. Others may have the length but not the density, and then you would put a ram which was carrying a denser fleece.

4703. **(Sir Rider Haggard.)** Do you think the country is carrying anything like the amount of sheep it could carry?—No, I think it could carry more, but I feel you would have to do away with some of the cattle.

4704. You think it is as highly stocked as it can be?—These parts of the country are more highly stocked than they should be. We have had three successive years of drought and we have been unable to get the animals fattened for sale. The farmers have been unable to get them into sale condition.

4705. You think the country is fully stocked?—In these parts—yes. I believe that out westwards there is no doubt they could carry more stock, but they want water, and they must go in for boring.

4706. Do most of these farmers make hay for winter and grow roots?—I would not like to say most of them, but the progressive ones do, but unfortunately this last three years it has been impossible to do anything in that way.

4707. But in normal years the progressive ones do?—Yes. Here is a point which may interest you. Speaking now as a farmer having an interest in this country, which I want to see go ahead, during the last few years there has been a great expenditure in wire fencing. Now, there is no doubt about it, that if you

fence a property properly, the carrying capacity of that property alone will be increased by 50 per cent.

4708. Why is that?—If you have a tract of country which is not fenced, you have the animals roaming all over that country, selecting the sweetest feeding and trampling out the rest, but if you have camps you can put the sheep into one and leave them till they have eaten what is there and then you can take them out and allow the camp to rest, and so you go from camp to camp. If you notice the country which is fenced as you pass through it, you will see the line of my argument. I am not speaking theoretically now; I am speaking practically. That is what we are busy doing ourselves—camping and finding water.

4709. I think you told me just now that only the progressive farmers grew winter feeding. So if that is so, those who do not grow winter feed, can only carry so many stock as the winter veldt will support?—Yes.

4710. That is largely the case throughout the country, is it not?—Yes, this year, inasmuch as we have had no rains, they have been unable to grow winter feed.

4711. But those who do not grow winter feed can only carry in summer as many sheep as their farms will bear in winter?—That is so.

4712. That is very largely the case?—Yes.

4713. And, therefore, the country is not really stocked to its full capacity, on the supposition that each farmer grew a proper proportion of winter feed?—No. This country is in the progressive stage. I will point out another thing. On two of my farms I have been attempting to get irrigation schemes carried out. Well, I have a gas suction pumping plant erected about three months ago, and I almost have the weir completed on the Modder River. I had to use the crops which were growing to carry the stock through the summer months, when we should have had good veldt, and I shall now have to remove my stock somewhere else because there is nothing left. I have just succeeded in getting the irrigation scheme on a fair way to completion, and I hope that very soon we shall be in a position to laugh at the drought. With the three years of drought we have had it has been impossible to keep one's animals in condition to get the work forward as well as one could desire. In December, January, and February, there has been no water in the Modder River at my place. Just recently my manager had to send 2 miles away to get some water from a windmill, and he decided it was the best thing to send his family to the Cape for the present. This drought has been exceedingly severe.

4714. These are sad accidental conditions which we hope will not be repeated. But I am talking of the general position—that a great many farmers do not grow enough food to be used in winter?—That is quite true.

4715. And therefore you cannot say that their farms are fully stocked, because they would only naturally be stocked to the carrying capacity of which they would be capable in the winter months?—Personally, I think that a farm is fully stocked if it has as much stock as there are foodstuffs to feed it. If you ask me if it is possible by means of irrigation and fencing, and improved methods of that kind, to carry more stock I should agree that it was.

4716. By growing hay?—Yes, there is no doubt about it—it may be that you could carry double, but it is no good saying that you could carry that quantity to-day. You could not.

4717. **(Mr. Campbell.)** When you spoke of the practice of wool-buying that was condemned in Cape Town as not being prevalent here, were you speaking of the Bloemfontein centre, or generally of all the small towns throughout the Free State?—I am only alluding to the very small places. I say in the larger centres—you can take Bloemfontein—and the progressive towns up-country, competition is so keen that although the storekeepers may not have the benefit of a great knowledge of wool, they have some idea of the value, inasmuch as they have sent down clips for several years, and I presume they make a note in their books that such a farmer's wool has realised so much, and another's so much, and they know the difference in the price. At the coast itself, every bale of wool is sold on its merits.

4718. But in the small towns practically all the buying of wool is done by the storekeepers, is it not?—To a great extent, but if a man has a very fine clip of wool and he feels that he is not getting a fair price for it, he will send it down to the coast himself, or to some other centre where there is competition. You see here in Bloemfontein there are two coast houses represented—W. Lane & Co., and my own house.

4719. But in the small country towns the storekeeper does buy the wool, and I suppose the small farmer who has not an expert knowledge of wool has to sell to him?—Yes, I suppose so.

4720. And I suppose that the buying in such a case will be a rather "happy-go-lucky" sort of business, and not so much a case of selling on merits?—Yes.

4721. I think that was the whole substance of the statement made to us in Cape Town?—Yes, I suppose they buy with the little knowledge they have. I have had a storekeeper send in two lots of wool, and he has discovered that he has paid more money for the inferior wool than the superior.

4722. Another matter out of which the question arose was that of classing the wool. It was a reply to an allegation that the classing of wools was very indifferently done among the majority of farmers in the Cape Province and elsewhere in the Union: is it a fact that the majority of the smaller farmers do not know much about the getting up of their wool for sale?—That is so.

4723. Could you suggest any means by which the farmers could be made to understand the value of getting up their small clips in a better way?—My own opinion is this, that if the farmer would only, as I have told them, keep out the dirt and dirty parts of the fleece, and if they have inferior fleeces such as from old ewes, keep those on one side, and so keep their wool as uniform as possible, that would be quite sufficient, and they need not worry. Because the whole fleece can be laid out by the manufacturer, and if the farmer begins dragging the fleece about without understanding it, it creates trouble.

4724. Do you think there is any means of giving technical instruction by means of Government experts or technical schools?—I do not think so. They would not attend such schools. But I do think that the agricultural shows assist them materially. They come across progressive farmers and see what is happening. They see wool exhibits, and chat with one another, and in this manner ascertain what they should do.

4725. You spoke of the great improvement that has taken place in the quality of the wool as produced from the sheep in the Free State. Does that apply to the Free State generally?—I think so.

4726. And have you reached anywhere near your limit in selection or breeding for the production of the finer types?—No, I do not think so.

4727. You think there is still room for improvement?—Yes.

4728. And having that in view, and seeing that you have already beaten the Australian record for fine tops in price——?—No, I do not say that. I mean to say that at the present time, if you take the Australian 64 tops you will find that, if anything, there is a better demand for the Cape 64 tops than the Australian.

4729. Did you not say you realised better prices?—If so, it would only be fractional. There has been a little more demand, but I do not think that is a point worth much consideration. The point is that they were on a par with the Australian in the 64 class.

4730. Now, having that in view, it appears to me that you have a very promising future for the wool industry here, and you have rather implied that it is not capable of very great expansion in the Free State under present conditions, but by means of irrigation and growing artificial feeding crops, is there not room

for a considerable expansion of the industry here?—Yes.

4731. And would the same thing be true generally of the other districts in the Union?—I think so.

4732. So that, altogether, one can look forward to a vast extension of the sheep-raising industry in South Africa?—Yes.

4733. **(Mr. Garnett.)** Has any of your wool been sold at the auctions in London?—Yes, a little.

4734. Are you satisfied with the prices obtained in London; does the wool realise satisfactory prices?—Now you are touching on another point. As you are probably aware dock charges have gone up at Home, and at present less and less wool is finding its way to London; it is going more and more direct to the factories.

4735. Has your trade with Bradford increased?—It varies.

4736. We have had it in evidence at Cape Town that some half million's worth of the best wool found its way to Germany; is your trade with Bradford showing an increase or not?—At present Bradford wants wool.

4737. But, speaking generally, are you maintaining and improving your connection with the West Riding for South African wools?—Well, that is exactly what we are doing, and what we are striving for all the time. We are striving to produce a wool suitable for the Bradford trade.

4738. And with a fair measure of success, I take it?—Yes. There is one point I want to mention in regard to what I referred to just now about the fineness of Cape wools: I do not want you to take away the impression that we are competing in the seventies, eighties, and nineties spinning counts. We are not. I was speaking of the sixties.

4739. **(Mr. Tatlow.)** Do you find that the growing of fodder to help the sheep through the winter is increasing among the farmers?—Yes, distinctly.

4740. Is the number of farmers who produce on a small scale increasing also; is there a larger number of farmers engaging in the trade?—Yes, I think so.

4741. I suppose the drought of the last few years has taught the desirability of providing winter feed?—Yes. I speak from my own experience. It has always been our endeavour to grow ample foodstuffs, but this recent drought has made it impossible.

4742. Your winter is very short?—It is quite long enough.

4743. It does not mean growing a great deal of fodder?—Yes, it does. When you speak of the winter you speak of the dry season. We may get some rains in April and may get nothing more until September or later—if we get them in September we are fortunate. Last October we had some, and everybody thought there was a happy future before us, but that was the finish of our rains.

4744. **(Chairman.)** What is the total number of sheep in South Africa?—I have no figures.

4745. I have been given 35,000,000; I understand the figure is 93,000,000 or thereabouts in Australia?—Yes, about that.

4746. If that is so, how is it that you only produce about one-sixth of the total output of Australia?—I think that is easily explained, presuming that the figures are correct. You see there is still a great number of Cape sheep in the country. Then we are not on a par with Australia in the quality of our sheep generally. We are still importing sheep from that country and are constantly trying to get up to their standard. We are already up to their standard in a number of wools, but I do not suggest we are up to them in the weight of our fleeces.

4747. Your fleeces are lighter than Australia?—I am afraid so.

4748. What proportion of lambs do you rear?—That depends. I have known a man with a small flock to rear as many as 90 per cent. But if a farmer has a big flock and dry years it is no unusual thing for him to have to cut the throats of the lambs in order to save the ewes.

4749. Does farming pay here?—You might just as well ask does business pay? It depends on who is at the head of it. One man succeeds and another fails. It is the man who has his coat off and his sleeves turned up who succeeds as a rule. And if he uses his brains in farming it will pay him well.

4750. Would closer settlement increase or diminish the number of sheep the country would carry?—Closer settlement with progressive measures to grow the needful foodstuffs will naturally increase the number of sheep.

4751. What is the explanation of the fact that South Africa has to import such a large amount of milk?—Honestly, I do not know.

4752. Is there any possibility of the country producing enough milk for its requirements?—I think so.

4753. There is no definite or distinct reason why she does not?—No, there is no reason except that she has not attained that stage when she has the necessary foodstuffs for feeding dairy cattle during the winter. In summer we have too much milk, and large quantities of separated milk are given to the pigs. The farms are too far away from centres to sell their milk and it goes to producing butter. That raises another point, and that is that it is very essential to get into this country a type of cattle that is rich in butter fat.

4754. **(Sir Rider Haggard.)** You go in for Frieslands very largely?—I have not personally, but I know a large number have gone in for them, because they like the parish pump, I suppose.

4755. Well, they are certainly not rich in butter fat?—On the contrary they are very poor. The cattle I introduced are the redpolls. They give from 4 to 5 per cent. of butter fat. If you have a good shorthorn, Redpoll, or Ayrshire, you get butter fat, but with the Friesland you may get 2·5. The difference is that the Friesland gives a very large and copious flow and the Redpoll gives a richer flow but less quantity.

4756. Next to the Alderney and Jersey perhaps it is the richest?—Yes.

4757. **(Mr. Garnett.)** In regard to the relative proportions of wool produced here and in Australia, I understand that during the last generation they have doubled the weight of the fleece in Australia. Have you done the same?—I could not tell you.

4758. We had it in evidence over and over again that during the past generation the Australian fleece had been doubled in weight or rather more, and if you have not done that it would no doubt account for the disparity?—I do not know whether it is as much as that. But I think that they have now as big a weight on the back of the sheep as they can possibly put, and a number of our sheep are in the same position.

Bloemfontein, Saturday, 21st March 1914.

Mr. C. McG. Johnston, Secretary to the South African Agricultural Union, called and examined.

(*For the evidence of this witness on "Forests,"* see *p.* 293.)

4759. **(Chairman.)** The subjects on which you are prepared to give evidence are the progress of agriculture and horse-breeding in the Orange Free State. We shall be glad to hear what you have to say. Let us have the main features first?—The main features in the Free State are, I think, really that we have made very marked progress in the merino wool industry during late years. We have improved not only the

quality of the wool but the quantity that our sheep are producing, and the prices we are now obtaining on the London market are proof of that improvement. Our difficulty I would say at the present time in connection with the industry is, of course, to eradicate the scab entirely from our flocks, and also to ascertain whether it is a sound policy to embark on exporting mutton. The present is a very abnormal year, but in normal years at this time practically all the stock in the Free State is fat and in good condition. That meat should be an asset to the farmers of the country. Then the sheep go into the winter, and about October particularly you find a great difficulty in obtaining fat meat in the country. Now, if the farmers can export their surplus stock of sheep when it is fat, they get the cash, and the country has not got to carry over this surplus stock through the winter when feeding is scarce, and the farmers are relieved of the difficulty of providing a large quantity of winter food. I am assuming that the type of mutton we can produce is suitable when it is in good condition for the markets of the world. Of course, it may be a question whether this part of the Union is really only a stock-raising country, and whether the grazing stock should not go to some other part of South Africa where mutton can be better fattened. This is a matter to be determined. Now regarding horses, as you know, under Crown Colony Government we introduced the thoroughbred into this country, and the policy has been carried on, with possibly less consistency than more, of endeavouring to grade up the horses of the country by use of the thoroughbred sire ; it is difficult to crystallise the results of that experiment to-day. I think a very fair percentage of experienced men will say that the thoroughbred sire is the best finishing horse you can get in the world, but you must get substance into your mare, and it would appear that the use of the thoroughbred sire on, I do not want to say the weedy mare of the Free State, but, anyhow, the light mare of the Free State, is liable to produce a type of horse which is too light or too weedy for Army or remount requirements, because although horse-breeding does not at present appear to be one of the most profitable forms of farming in this country, I think it is essential that we should look upon the national importance of the horse to South Africa for remount purposes. Not only for our own defence purposes, but with a view to the possibility of being able to open up markets for our horses elsewhere. At one time, I think I am correct in saying, South Africa exported horses to India ; well, we seem to be a long way from exporting horses to any country at present. As a matter of fact many farmers are trying to clear out of their brood mares, they do not find them quite as profitable as other classes of farming, and to me it appears that that is a very unfortunate state of affairs because the brood mare is a very important factor, not only in the Colonial life of the country, and not only in regard to the horse industry, looking at it from an economic point of view, but also to the national defence of the country, and I think the Defence authorities do not attach sufficient importance to the movement which is taking place in the horse industry. I have a very clear indication of the trend of things to-day in connection with this Agricultural Show which we are holding here a week hence. Our horse entries have decreased very much all round. I am not referring to pure bred sires classes, but to general horses suitable for remounts and for riding and driving. Of course, another important factor has been the introduction of the cheap motor car, the "Ford" more particularly. The farmer finds it more economical to buy a "Ford" car and do away with his horses. There are many farmers who ten years ago had plenty of horses, and to-day they have none at all, and they have practically no intention of having horses again. I might mention that the introduction of the Clydesdale and the Oldenberg, not the Shire to any extent and not the Suffolk, but the introduction of the Clydesdale and Oldenberg has gone forward rapidly in the last three years. A certain number of Percherons were introduced also, but they do not seem to have taken on. We have, I believe, tried practically every breed of horse with the exception of some Russian breeds. We have tried every known breed on the face of the earth, and we have probably tried too many. Regarding cattle, I happen to be Secretary of the Friesland Breeders' Association of South Africa, so I am perhaps more of a Friesland man myself. We have imported very largely, and we have been assisted by the Department of Agriculture, who lent us an inspector, a Hollander, who has inspected the Friesland cattle in the Transvaal, in the Cape and in Natal, and is now working in this Province. He reports that the farmers, as a rule, do not seem to be taking sufficient care of their young stock. The South African-bred animals are not showing up so well as we should like in comparison with the imported animals, but in comparison with British breeds the Friesland seems to be coming into the country in large numbers. Next week at the Show one breeder from Holland alone will have 24 head of North Friesland cattle. The only British breeding society that ever thought of doing anything in this direction is the Lincoln Red Society. Mr. Evans of Lincoln was out here some time ago endeavouring to introduce some of these cattle, but his efforts did not, I think, come to much. In this connection I would like to mention the subject of our relations with the British breed societies. From the Holland, American, or Canadian societies we can get practically any information or assistance that we require, but when we come to deal with the British societies, such as the Shorthorn and so forth, we do not get assistance. It would occur to one that the British societies are rather inclined to take up a superior position, and they do not help us. I might mention as an instance of what I mean—a few years ago we thought of forming a Shorthorn society in Bloemfontein, and we wrote to the Shorthorn Society in Great Britain asking them to send us a copy of their rules, and they replied that they had already sent one to Cape Town : they thought that was sufficient. Now, South Africa is a very large country, and it occurred to one that they might have been a little more generous and sent, say, half a dozen copies. I do certainly think that the British breeding societies might do a little more for us. I except the Royal Agricultural Society, against which I have no complaint to make.

4760. What other kind of inquiry have you failed to get an answer to?—We have corresponded freely with the breeding societies and we have had a good deal of difficulty in extracting information. I except the Lincoln Red Society, because they met us very fairly and supplied us with stud books, but generally speaking the societies at Home do not seem to have gone out of their way, as they might be expected to do, to assist us, because, after all, it is a purely business proposition. Holland does not do it for philanthropic reasons, they do it as a matter of business, they want to keep in touch with us. Now regarding cattle in general, we are getting a very good class of cattle out here but we are faced with one great difficulty, and that is in regard to this matter of tuberculosis. The onus of tuberculosis is thrown on the importer of cattle into this country. The cattle are tested on the other side but we do not find that to be sufficient. I am talking now about English, American, and Dutch cattle imported on a certificate. We have approached the Government to establish in England a quarantine farm station, where cattle would be quarantined for 30 days prior to testing, because it is one of the peculiar features of this test that if you buy an animal from a not too scrupulous dealer he may have doped the animal by a small injection of tuberculin, with the result that the animal does not react to the test in England or Holland but it reacts out here, and the farmer who imports the animal is the loser as reacting animals are slaughtered. It occurs to us that the way to get over that difficulty is to establish a proper quarantine station in England, and not a testing station as at present exists in England and Holland. Say that the cattle could be quarantined previous to being tested, that would be of more value to us.

4761. How long does this dope take to work off?—21 days about.

4762. Has any large proportion of these imported cattle been condemned?—Yes, I cannot give you the exact percentage, but we have had some very deplorable losses.* I know of one Shorthorn bull that the man paid 300*l.* for, and I believe it was destroyed at Cape Town.

4763. In regard to cattle for milking, do you see any prospect of an increased production of milk?—It is a very difficult question to answer at the present time. As a matter of fact we have over-stocked our creameries last year. We have, undoubtedly, made considerable strides not only in regard to co-operation among the farmers in supplying cream, but also in the improvement of our cattle. But this year has been very disheartening and the creameries are having a bad time. When we get normal seasons again I do not see why we should not export butter in large quantities. Many other parts of South Africa outside the Free State are good for cattle and they are helping in this direction, so I see no reason why we should not very soon be able to produce all the milk and butter we require for own consumption.

4764. What do you say regarding your fight against pests and diseases?—We have been remarkably successful. Only yesterday Sir Rider Haggard mentioned the difficulties which he had to contend with thirty years ago in this respect. In the Free State we unfortunately are confronted with the scourge of lamziekte. Sir Arnold Theiler has had the matter in hand for some time and two German scientists have been brought out to further investigate the disease, while Mr. Arthur Stead has been detailed at Middelburg, Cape Colony, for investigation. The losses from this disease ran into thousands of head during the last few years and the disease has paralysed the whole cattle industry in the west of this Province.

4765. What is lamziekte?—It is rather a difficult disease to describe. I do not know that it is possible to say exactly what it is at present. The appearance of the disease is something similar to the old stijf sickness. The cattle become paralysed in their front legs and finally go down and die. Very few animals recover.

4766. Is it tick-borne disease?—There was a theory to that effect, but it is probable, and the weight of evidence is inclined to show, that it is a deficiency disease, similar to beri-beri. Of course, as is always the case in these matters, scientific opinion is split into hostile camps, but there is a great deal of evidence in support of the theory that it is a kind of disease which is caused by some strange deficiency in the veldt. It is supposed that an animal does not get sufficient nutrition and that the food it obtains fails in some important constituent. I think in the case of beri-beri it was supposed to be produced by eating rice in large quantities for a very long period of time. I do not think it is due to deficiency in phosphates. Dr. Hutchins recommended phosphates and salt, but that has not been proved to be anything like a preventive.

4767. Have you anything to say specially regarding irrigation?—I do not come practically in touch with irrigation, but I realise it is a most important factor in our development.

4768. **(Sir Jan Langerman.)** You refer to lamziekte. How long has this disease been in vogue?—I have only known the Free State since the war and we have heard of it since then.

4769. And previous to the war?—Yes, in the western districts it was known previous to the war. Farmers report now, and have reported for the last few years, that farms which were formerly free from lamziekte are now affected, and districts now have it which did not have it before. A few cases have occurred east of the railway line where it was not known before.

4770. If it is due to a deficiency in the veldt, how is it that it only occurs now and not before?—I am afraid I cannot say: I am only repeating what the veterinary authorities and farmers have informed me; heavy stocking may account for it.

4771. Of course, it is very nice to look forward to the exportation of frozen meat, but what are our imports at the present time?—They are very considerable, I believe.

4772. So you will have a long uphill fight before you can hope to supply even your own country?—Well, in spite of all that I think we ought to endeavour to convert our surplus fat stock into cash, when they are saleable.

4773. In the face of this large importation?—I would not say it is a large importation of frozen mutton. It does not reach up-country. It is only as far as the coast towns are concerned, so I understand, and will soon cease, if it has not already done so.

4774. Now about the quality and quantity of the sheep. Of course, our stock in this country really dates from the war because during the war everything was destroyed?—Yes.

4775. We have only really begun farming properly since the war?—Yes.

4776. So that during the fourteen years the Colony has made immense strides in cattle and sheep raising?—Yes, it is almost incredible, I think, the strides that have been made.

4777. As regards the quality of wool on the fleeces since the war, what do you think has been the increase, say, during the last ten years in the way of fleeces?—I could only guess. I would rather refer that question to our sheep expert, but I should say that we have put on at least 1¾ lbs.

4778. Do you think that is a good increase?—I think it is excellent when you come to think that we are only just getting hold of the farmers and inducing them to get good rams. We are much indebted to Australia in this respect.

4779. And it has been through Australian rams that you have been able to improve?—I think so entirely.

4780. In regard to the sheep we are importing, do we not import Saxonys and others?—In this Province we are going in for Tasmanians and Wanganellas. We have had a large infusion of Wanganellas blood; they have been recommended for the drier areas of the west and the Tasmanians for Harrismith and the eastern districts.

4781. How far do you think this country has gone ahead regarding sheep farming. Evidence has been given that the sheep in the Free State could be largely increased provided that we did away with a certain number of cattle, which would imply that the country is fairly stocked. What is your opinion?—I should say the country is overstocked with a certain type. It is carrying the wrong type to a large extent. This type of animal is not good enough. Many farmers are keeping non-economic cattle and sheep. If they kept better sheep they would not only save their veldt, but to a large extent they would save money also. The same thing applies to cattle. That is one of the great

* The witness subsequently furnished the following particulars:—

TUBERCULOSIS.

Return of Imported Cattle from 1st January 1912 to 31st March 1913.			Return of Imported Cattle tested during Year ended 31st March 1914.		
Province.	No. tested	No. of Reactors condemned	Province.	No. tested.	No. of Reactors condemned.
Transvaal -	68	3	Transvaal -	305	12
Orange Free State.	225	6	Orange Free State.	327	6
Cape - -	111	3	Transkei -	55	3
Natal - -	153	7	Cape - -	874	36
			Natal - -	325	14
Total for Union -	557	22	Total -	1,886	71

difficulties, to induce the farmer to look on farming as a business proposition and to keep the kind of stock that pays him best. But until you can induce a farmer to keep books he will never know what is a profitable line and what is not.

4782. It is quite true that the farmer does not keep books. Now as regards sheep breeders and breeding rams to a large extent, am I right in thinking that they have orders booked two, three, and four years ahead showing that the people are anxious to get a better class of ram everywhere?—I can quote one case. Two years ago at our Show one farmer sold 3,000*l.* worth of rams, all or mainly to Free State farmers. That is one of the great reasons why this Show has grown with such great rapidity; it is such an excellent sale centre.

4783. So there is anxiety on the part of all farmers to improve their stocks and do away with the non-economical part of their farming?—Yes. I would say this, that I believe that by adopting a strong agricultural policy the Government can increase that desire, and can push it ahead much more rapidly than it would go otherwise by a natural effusion of time.

4784. What is your opinion about the Government Agricultural Department going into competition with the private breeders. You know that the Government have experimental farms all over the country where they breed not only sheep but horses, to a large extent. They have induced a lot of people to start breeding and then they have come into competition with those private breeders. Do you think that is good business on the part of the Government?—Well, I think that the Government is already abolishing the principle, but I think at the same time one should carefully consider the maximum of benefit to the people of the country in preference to the interests of any smaller section.

4785. But would not that discourage people from breeding stud animals for themselves and induce them to rely on getting stock from Government sources?—It might do so if the Government proved to be very successful breeders.

4786. I think the country should encourage private men to come forward and improve matters themselves. Do you not agree with that?—Yes, I understand the Government have already decided to abolish the stud farms and that the proposal has not been met by any protest or opposition on the part of the farming community, so that we can presume that the farmers are satisfied with the movement.

4787. **(Mr. Lorimer.)** I have only one question to ask you — is there anything about the Ford motor except its cheapness which renders it specially suitable for South African requirements?—Well, in the first place, they seem to be very well standardised. You can get the spare parts very readily and they are certainly standing the work of the country very well indeed at the price.

4788. Is the spring of the car specially elastic?—We are putting on shock absorbers. They strap the back springs. The cars certainly have their faults, but they will travel pretty well anywhere.

4789. Most of the roads we have ridden on are very good, but you must have some very rough roads in the country?—Yes, we have some very bad ones.

4790. I think you said the farmers are buying motor cars and giving up horses and some farmers have none at all. I suppose they must keep some horses for riding and driving?—No, they may perhaps keep a pony or two about the homestead, but many have given up breeding mares.

4791. They must have horses to work the farms?—No, they have only a riding pony or two, they work oxen.

4792. How do they manage in case of a break-down?—Well, then the bullock is requisitioned to bring the car home.

4793. **(Mr. Bowring.)** Do the farmers show any disposition to use horses in place of oxen now?—They do more or less. The introduction of the Clydesdale has started a few farmers ploughing with heavy horses, but, of course, it is a very difficult thing to do on a large scale. I come from a part of the country—Ulster—where we plough with horses always, but it is very difficult to get anyone except the white man to manage horses. The native is accustomed to kick oxen and treat them in a very rough fashion, and he wishes to apply the same treatment to horses, so they are faced with a very real difficulty there. In the Western Cape Colony they are accustomed to handling mules, but here we are accustomed to bullocks and they continue to work bullocks. You have a great difficulty in getting them to work horses properly.

4794. You think it is more a matter of labour than otherwise?—Yes.

4795. You think the heavy horses might do even better work than oxen if only they were in the hands of white labour?—I think it is quite possible, white labour having more intelligence than Kaffir.

4796. **(Sir Rider Haggard.)** You were talking with reference to the exporting of mutton. Do you know it is a very expensive thing to put up these factories? — I am afraid I am ignorant of the economical side of the question, but if the mutton is available the thing could probably be financed.

4797. In regard to horses, you were telling us about the breed of horses. Have you noticed in the advertising columns of your paper that the Government are apparently disposing of their stud farms at Tweespruit and Standerton?—They are now selling 59 horses at Tweespruit, including 21 thoroughbred stallions.

4798. Does that mean they are giving up breeding?—Yes, it means that they are abolishing the policy of leasing stallions to farmers, the policy inaugurated after the war; that was for the Government to purchase horses and lease them to farmers at 30*l.*, 40*l.*, and 50*l.* These approved farmers had to guarantee to look after the animals and to serve the farm mares at 2*l.* 10*s.* per service.

4799. What is the meaning of this movement; is the Government going to breed on some other system?—No, I understand not.

4800. Then it denotes the abandonment of Government stud farms?—It does. Their intention is only to retain, as far as the Free State is concerned, two thoroughbred horses and a few mares at the Glen Agricultural College for educational purposes.

4801. Then in future the country must depend on its own effort with reference to horses?—Yes.

4802. I take it that the Department of Agriculture now assumes that if anything is required on horse matters it devolves on the Department of Defence to attend to it. At any rate, it is practically breaking up its studs?—Yes.

4803. It is rather a serious matter for the horse-breeding industry, is it not?—Yes, I think so.

4804. You talk about breeding imported cattle; do you import many Redpolls?—In this neighbourhood we have a number, this is a good centre for Redpolls.

4805. You get them from Suffolk and Norfolk, I suppose?—Yes, Lord Cranford, Sir Aylwin Fellowes, and some of the other breeders.

4806. Do you find they are satisfactory stock?—Yes, the breeders are satisfied. They do well at the Show and milk well.

4807. Do they prove hardy?—Yes, their critics say they are rather more subject to ophthalmia than other breeds, but I do not think this idea is well founded myself.

4808. Is it likely to be a stock which will be largely increased in this part of the country?—Judging by the way they have increased in popularity among the small farmers in the States I should say, yes.

4809. Between the Redpoll and the Shorthorn, which is the most popular?—At present, the Redpoll is entirely or almost localised round this district. There are many breeders in other parts, including Rhodesia, who go in for Shorthorns.

4810. The Shorthorn holds most of the market?—Yes.

4811. In regard to this lamziekte, I understand it is a comparatively new disease?—No, I may have created a wrong impression, it has been traced back

to 1863, the first cases were reported near Grahamstown in 1863. It has never been a serious matter before, because it does not attack stock that are moving to any extent. Trekking stock do not get lamziekte, but of late it has entirely paralysed the cattle industry of the western part of this Province.

4812. Is the loss very heavy?—Yes, very heavy indeed. One man last year south of the town lost 35 head out of 150.

4813. Do the animals recover?—Very seldom.

4814. Does dipping affect it in any way?—The opinion of the veterinary people is no.

4815. Therefore we have a disease which is assuming vast proportions and which is not affected by dipping?—Yes.

4816. It must be tackled in some other fashion?—Yes.

4817. It has increased, I gather, very much of late years?—Yes.

4818. I never heard of it in the early days of South Africa?—The last five years it has increased very much. Men who are trekking large numbers of stock over to the west reckon they are safe until October from lamziekte, although they are going into a lamziekte country. It is, as a rule, prevalent in the summer, and they hope to get back before it breaks out, and, if not, they go off in the Kalahari direction and keep the stock moving.

4819. Here is a disease not caused by a tick or microbe, but something which has apparently resulted from the food conditions, and is increasing largely?—Yes.

4820. And which has a high mortality?—That is so, very high.

4821. What is the rate of mortality among animals attacked?—I could not say, but it is very high.

4822. The ones that escape, then, are the ones that are not attacked?—Yes.

4823. There is a danger, then, that it may take the place of these other diseases which you have conquered by dipping?—We hope not. Although it is spreading it is spreading slowly. We have heard of very few cases having crossed the line of railway going up to Johannesburg.

4824. Does it radiate outwards everywhere, or is it only certain veldt that is affected?—It appears to be only certain veldt. They have been endeavouring to discover what the disease was due to. They take an affected farm and fence it, and try to narrow down the area which has caused the disease, and they get closer and closer until they get a sufficiently small area where a minute examination of the veldt can be undertaken.

4825. Well, at any rate, it is a new danger?—Yes.

4826. Are you much afflicted with locusts now?—I have been in the Department of Agriculture as chief locust officer in this Province, and in times back we have had enormous invasions in the Free State.

4827. Is this the chief home of the locust in South Africa?—No, it is very difficult to say where the home of the locust is. Our ideas are purely theory. In 1894 we had an enormous invasion from the north-west. These were the red locusts of the coast and not the ordinary locust. Since then they have not returned. They confine their depredations to the coast belt, as a rule. Six years ago we were overrun again and we started buying locusts at so much a bag in the voetganger stage. We bought 8,000 or 9,000 tons. Next year we undertook arsenical spraying, and we were successful in practically eradicating all the voetgangers or nearly all of them. What we did not kill of the migratory locust, birds did. Now this last year there has been a small recrudescence of locusts which have hatched out in the Steynsburg district, coming from no one knows where, and it is just possible, unless the Government is very watchful and careful, that it may give rise to other invasions, but what the theory of the invasions is I do not think anyone is prepared to say.

4828. Do you think the locusts are one of your ten plagues which can be kept under, or are they a serious danger to the future of agriculture?—I do not think they are a serious danger to the future of agriculture, but it behoves the Department of Agriculture to be very careful and watch the locust invasions, because there is a strange feature which has cropped up lately. You know, of course, that in these entomological and scientific matters there is no such thing as an infrangible opinion The opinion of to-day is the folly of to-morrow, and *vice versâ*. We have a locust called the Danica. This turns out to be identical with the plague locust of Northern Africa, and our plague locust has crossed with it, with the result that some of the progeny demonstrate migratory tendencies and others do not. It may be that the migratory tendency, which is the danger, lies dormant for several generations and then shows itself again.

4829. Some take after the paternal and others the maternal?—Quite so, and it gives rise to an interesting subject for speculation.

4830. These locusts are comparatively new, are they not?—No.

4831. What is the first plague of locusts you remember?—I have been here twenty years and have known them all the time.

4832. Have any other fresh diseases started besides this lamziekte?—Yes, a new horse disease, but I know nothing about it.

4833. Is it amenable to dipping?—I do not know Sir Arnold Theiler is now investigating it.

4834. **(Mr. Garnett.)** You mentioned the great improvement in merino wool and also mentioned the desirability of starting an export trade in frozen mutton. But could you combine the two? The merino is not a butcher's beast, is it?—It is very good mutton. Surely a great deal of the imported mutton which people eat in England is merino mutton.

4835. What I mean is, can the merino, as a butcher's beast, compete with any of the Downs?—No. But the mutton which New Zealand sends, is, I suppose, largely a cross of the merino with the Dorset. Of course, it is a question for investigation whether we should import a suitable strain for the purpose. But it is a rather dangerous thing to talk about the importation of fresh blood. Our farmers are only too prone to try fresh strains, with disastrous results. We had a lot of damage done to our wool by the introduction of Lincoln blood.

4836. In your pursuit of mutton you might possibly deteriorate your very excellent wool?—Yes.

4837. I think it will be generally admitted that the merino sheep cannot compete as a butcher's beast with any of the Down sheep?—I think you are quite right there.

4838. In regard to your horse-breeding, I believe you had an export trade to India at one time?—Yes.

4839. Why was it lost?—I think Australia cut us out.

4840. I believe the Australian breeders captured the Indian market?—Yes. We held it in mules for some time.

4841. You are trying to improve the size of your horses?—Yes. But not as a policy. That is one of our complaints rather, I think, that we have no definite horse policy. We have a sheep and cattle policy but not a horse policy.

4842. There is no organisation on the part of the Government, or private individuals, or associations of individuals, to regain that market for remounts that you have lost?—No.

4843. Am I right in believing that your horses are possessed of wonderful stamina?—I should say the finest stamina in the world.

4844. Well, now, you are trying to improve the size, and to do that you apparently import a big heavy horse?—Yes. But any organised effort has been chiefly through the thoroughbred.

4845. How has that succeeded?—I am not a horse expert, but I do not think the thoroughbred is a good intermediate cross. He is a good finishing class, but you want some size and substance.

4846. You want to improve the size of your mares?—Yes.

4847. It is a generally accepted theory on the part of the breeders that the size should be on the part of the dam?—Yes.

4848. Then by trying to improve or increase the size of your horses by putting a big Clydesdale on to a small mare, you are breeding on wrong lines?—Yes. But how are going to get the size at all? We have a small mare, and you have to introduce the size from somewhere, and it appears to me that the only way is to put on a heavier Oldenburg or Clyde, and then finish with a thoroughbred sire.

4849. Is it too much to say that the policy of crossing those heavy horses on to your mares will result in loss of stamina?—I have no evidence to bear that out, because, I must confess, that some of these crosses look well.

4850. But would they go through a long day as well as your own cross?—I should not think they would.

4851. Have you imported any Holsteins from America?—Yes, we have had both Canadian and American Holsteins.

4852. How have they done?—I am afraid I have kept trace of none of them.

4853. You do not know how they answer for milk production or butter fat?—No, I am afraid I cannot say. Their records are, of course, more carefully kept than others, as a rule, but I have no information.

4854. **(Mr. Sinclair.)** Has the Government given any official reason for its intended sale of thoroughbreds?—No, we saw the Minister on the matter the other day, and we gathered from him that he considered that the horse-breeding industry had now reached a stage where it might be left to the endeavours of private breeders.

4855. They think that the time has now arrived for private breeders to step in and carry on the work. Is that a view that your agricultural societies concur in?—We have not met to discuss the matter, but have accepted it as probably the right method at present, there being no definite policy. Simply the use of the stallions, and what are they? 21 stallions in a Province like this, without any definite mare classing or grading behind it. I think it is rather questionable whether it aids us very much.

4856. Has the importation by the Government of thoroughbreds been productive of good results in the past?—The result is still controversial. I should say it had myself, but a good many people would say it had not. Of course, you have to remember that if you had not had Government stallions, you would have had a lot of absolute weeds.

4857. That would seem to indicate that good work had been done, and that it is a pity it is to be departed from?—The Government will reply that the horses remain in the country.

4858. But they are not bringing in any more?—No.

4859. In regard to cattle, has the Government imported stud cattle in the past?—Yes, we have had constant sales of Government cattle.

4860. Their importation, it goes without saying, has tended to improve the breeds?—Yes.

4861. Is that policy being continued?—It is being given up, I believe rightly, because the private breeder of cattle is now in a position to supply the requirements.

4862. I suppose your societies lay themselves out to try to educate the farmer to improve both the quantity and the quality of his wools?—Yes. We do our utmost in that direction.

4863. Is literature printed and circulated among the settlers with that object?—Yes. We hold meetings throughout the Province, and have lectures at these Shows, and we have started a system of holding examinations for young farmers for judging stock, and the merino examinations have been markedly successful. I think that undoubtedly we have improved the general knowledge of the country very largely through holding these meetings and examinations.

4864. Do you spread literature throughout the country on the same subject?—To a certain extent. We did so more freely in the past, but we are wondering now whether it is not better to get hold of the man individually and talk to him. The farmer reads little.

4865. And the result of all the efforts that have been made since sheep farming was taken up at the end of the war has been to improve both the weight and the quality of the wool?—Yes.

4866. Now, as to the destruction of imported animals that were found to be suffering from tuberculosis under the circumstances you told us of, is there no local quarantine area where valuable animals that have been imported could be isolated?—They do quarantine them out here prior to the veterinary test, but that does not help the farmer, as if the animal reacts to the test it is slaughtered. He has bought a wrong one and loses his money. It is very hard on the man who wants to improve his stock. We are informed that the breeders in England are not prepared to have their animals quarantined. If that is so, it will not tend to business.

4867. I understood you to suggest that some of the diseases that cattle were subject to to were due to deficient nutrition. Can you tell me whether the wool of sheep that are bred in this part of the Union has a tendency to go back if it is not reinforced by new imported strains?—I have no information. As a rule that part of the country is not carrying any very large number of sheep.

4868. **(Mr. Tatlow.)** Has your Government been in communication with the English Board of Agriculture regarding this quarantine which you think is so desirable?—Yes.

4869. Has anything resulted from that?—I understand the farm is almost ready.

4870. Has the English Board of Agriculture expressed any views?—The matter has been under discussion for the last eighteen months, but we can only get unsatisfactory information from our Department. We are told that the farm will be ready soon, and it seems to remain at that and get no further.

4871. Have you hope of anything being done in future?—We saw the Minister in Cape Town about three weeks ago, and we were promised that it might be in working order in about three months. In Holland, I believe, it remains a testing station only. It has been suggested to us that the sellers in England may not be prepared to have their cattle tested, because if they react they are thrown back on their hands. Of course, that argument touches our people also and touches them hard.

4872. **(Chairman.)** Are these farms you speak of in Holland and England?—Yes. We have asked for it in both countries.

4873. **(Mr. Tatlow.)** It is, of course, in the power of the Board of Agriculture to make any regulations which they may think necessary?—Yes. I would like to point out that it is going to have a marked effect, I should imagine, on the importation of bulls from England, because the farmers here are getting very nervous about it.

4874. It will have a deterrent effect?—Yes. I believe so.

4875. You spoke about the movement of sheep from one district to another for the purpose of fattening: is that largely in existence?—No. I suggested that it might prove on investigation that certain parts of South Africa would be more suitable for fattening sheep and cattle than, possibly, our part, and, therefore, that we might develop into a raising and feeding ground.

4876. That is not so at present?—No.

4877. Your mind has turned from the number of sheep you produce to the prospect of exporting mutton?—Yes.

4878. If that is the case how does it come about that you cannot supply your own home demand at present?—I am not certain that we are not supplying it now.

4879. I thought you said there was a considerable importation?—We had until just lately. I understand meat was being imported into the coast ports.

4880. Is that decreasing?—Yes. Not long ago we were living almost exclusively on imported meat, but if you compare the number of sheep in South Africa and New Zealand, the populations being about equal, you will find that they are exporting large numbers of sheep from New Zealand in the form of mutton.

4881. **(Chairman.)** How rapidly is the number of sheep in South Africa increasing; it is something like 35 millions now, I believe?—Yes, I believe so.

4882. Do you know how many it was five years ago?—No, but I believe it has increased.

4883. You spoke of oxen being replaced by Clydesdales for farm work in some cases; how do the two compare? A team of oxen would require to be replaced by how many horses?—On reasonably soft ground a pair of horses would, I take it, pull a single furrow plough, which as a rule requires from four to six oxen.

4884. There is no accepted formula for replacing oxen by horses?—No, I have not heard of any.

4885. About these motor cars that are being used for work in the country; have large wheels and large clearances an important bearing on the rough country work they have to do?—I do not know that they have. The Ford is going with ordinary tyres.

4886. And not specially large wheels?—As regards clearance, some of the English cars have not sufficient clearance.

4887. Is there no English type of car suitable for work here?—The cars chiefly in use here are the Ford, the Upmobile, the Buick, and in English cars I think the Talbot and the Austin are the most common makes.

4888. Horse-power for horse-power, the English cars are how much dearer than the American?—The Ford costs roughly 200*l.* and the Austin 500*l.*

4889. For similar horse-power?—No, I would not say that. I think the Austin is higher.

4890. **(Sir Rider Haggard.)** You have detailed the difficulties about the careless importation of animals which develop tuberculosis and the necessity for isolation and test stations, but could not the difficulty be got over by your buyers insisting upon receiving from the English seller a certificate that the animal had been subjected to the tuberculin test?—Yes, but that does not help, because if the animal has been doped on the other side it does not react to the test in England or Holland, as the case may be, and it comes out here on a clean certificate and reacts here after quarantine.

4891. In that case I submit that you have a right of action against the seller?—Even if we have, 6,000 miles is a long way.

4892. But these men are not men of straw; they can always be sued?—I do not know anything about that point, but some of our men who have lost these animals are shrewd, and they have, no doubt, thought of all that.

4893. Then the certificate is of no value—that is what it comes to?—Of very little, and very often of none.

4894. It is a very serious matter if these certificates issued by big breeders of pedigree stock are either erroneous or misleading—to use a mild term—it is a serious matter for both seller and buyer?—I take it that the procedure is often that the dealer buys from the breeder and arranges the test. I am told by men who are up in the business that squaring the veterinary surgeon's test is not unknown.

4895, It may be so. All I can say is that it is a matter which ought at once to be brought to the notice of the proper authorities in England, if it is true that they are squared.

4896. **(Chairman.)** Who is the officer chiefly connected with this matter?—The chief veterinary officer at Pretoria—Mr. C. E. Gray, and the assistant principal veterinary officer, Mr. J. Borthwick, both of Pretoria

4897. **(Sir Rider Haggard.)** If that is the state of affairs existing at the present time, it would not be too much to say that it is destroying confidence among buyers?—I certainly consider it is, and that is why we have been endeavouring to get the Government to move in the matter as rapidly as possible.

4898. In the case of stock imported from other countries are there the same difficulties?—We have the same difficulty in regard to America and Holland.

4899. And so it comes to this, that no buyer who pays large sums for these imported animals can be certain that he is not getting something that is fraudulently certified to be free from tuberculosis?—He cannot be certain of buying animals that will not react in South Africa—I will put in that way.

4900. Well, that is the same thing?—Yes, that is what it comes to, certainly. Men who have imported stock have come to the conclusion that they are never going to do it again under existing conditions.

4901. **(Mr. Garnett.)** Assuming that the dealer with fraudulent intent gave an animal bought from a breeder a dope, would it be possible, if one had that animal subsequently examined, say by a veterinary surgeon, to ascertain that it had been doped?—No.

4902. You do not assert then that all these are fraudulent veterinary surgeons?—No, I do not want to make any suggestion of fraud. I only want to draw your attention to the result of this.

4903. **(Chairman.)** The destruction of confidence?—Exactly.

4904. **(Mr. Garnett.)** The veterinary surgeon may absolutely *bonâ fide* give a certificate that an animal was entirely free from tuberculosis, which had been doped without his knowledge?—Yes, he might give it with absolute good faith.

4905. **(Sir Jan Langerman.)** As secretary of the Agricultural Society, you take a great interest, I presume, in the financial requirements of farmers?—Yes, a very great interest.

4906. What facilities exist for a farmer raising money to put into his property?—There is only the Land Bank.

4907. Suppose a settler came out and bought up a bit of land—it is mortgaged to the Government at once, and if he wants to start farming, what facilities exist?—I do not think any except the ordinary business houses and banks.

4908. The ordinary bank would not advance capital unless there was collateral security to a reasonable extent?—That is so.

4909. Do you not think there is a large opening in South Africa, and especially in the Free State, for the introduction of capital from abroad in the shape of agricultural banks?—I should think there is. That is one of the great difficulties of the small farmer—being unable to get money for development.

4910. And you think the business could be run on safe and profitable lines?—I do, if you choose your men with care.

4911. You think there is an opening for the introduction of capital in that direction?—Decidedly.

4912. And it would be of great assistance to farmers in the development of their land?—It would be of very material assistance indeed, and give a very decided stimulus to the farming industry in South Africa generally.

Durban, 24 March 1914.] Mr. J. REYNOLDS-TAIT. [*Natural Resources : Animal and Agricultural Produce.*

NATAL.

Durban, Tuesday, 24th March 1914.

Mr. JOSEPH St. G. REYNOLDS-TAIT, representing the Natal Tea Planters' Association, called and examined.

(*For the evidence of this witness on "General Trade Questions,"* see *p.* 165 *of* [*Cd.* 7707].)

The witness submitted the following memorandum :—

1. Tea, apparently, was first grown and manufactured in Natal in about the year 1862. From that point up to about the year 1880, however, the industry was only carried on in a small experimental way and the products from the gardens did not appear on the market in any appreciable quantity until about the year 1885.

2. In the latter year the Customs duty on imported tea was 6*d.* per lb. (prior to this period the duty had been as high as 7*d.* per lb.), and the idea of this Customs rate being a permanent one was a sufficient inducement for the investment of capital in the industry.

3. That the article produced was sufficiently worthy of the attention of those who understood tea was vouched for by the fact that a sample of Natal tea produced in 1883 on the Kearsney estates was valued by experts of the highest reputation on the London market at 2*s.* 9*d.* per lb. This was considerably above the average price of the same grade of tea grown in India at the same period. There was very little or no tea grown in Ceylon at this time.

4. At this period the price for imported tea paid by the consumer ranged from 2*s.* to 3*s.* 6*d.* per lb., inclusive of the duty.

5. In the year 1883 very considerable developments took place in the tea industry; several new plantations were opened up, and from this point the extent of the tea industry has gradually increased year by year.

6. That the ultimate effect of these extensions was beneficial to the tea-drinking community is shown by the fact that, owing to the increased quantity of locally-produced tea being put on the market, the price of tea from all quarters fell from 2*s.* to 3*s.* 6*d.* in 1883 to from 1*s.* to 1*s.* 6*d.* in 1904. Of course, the price of tea on the "world's market" had fallen during the same period, but not to the same relative extent.

7. Natal tea is now sold to the consumer at from 9*d.* to 1*s.* 3*d.* per lb. according to quality.

8. In 1904 the duty on imported tea was reduced to 4*d.* per lb., and collaterally with this a duty of 15 per cent. was imposed on wood imported for packing purposes and of 25 per cent. on all printed matter used in the business.

9. In the year 1913 the importations of teas from overseas into Colonies within the Customs Union amounted, in weight, to 6,396,000 lb., of a money value of 297,000*l.*

10. The yearly consumption of tea in the Colonies within the Customs Union at present amounts to nearly 7,000,000 lbs. That the tea estates at present in existence in Natal are capable of producing very considerably more than this quantity of tea, and that the Colonies would benefit, directly and indirectly, by the further development of the tea industry, may be gathered from the following statement of the returns of the industry for 1908 :—

Total amount of capital at present invested in tea in Natal	343,000*l.*
Number of acres of tea planted not in full bearing	1,173 acres.
Number of acres of tea planted in full bearing	4,600 acres.
Number of acres capable of producing tea on present estates not yet planted	12,705 acres.
Estimate of yield for year 1908	2,139,800 lbs.
Estimate of yield when all tea land on present estates is planted and in full bearing	9,824,000 lbs.

11. In consequence, however, of the rise in the price of labour consequent upon the prohibition of indentured Indians entering the country, a rise which is estimated at quite 75 per cent., some of the younger estates have abandoned tea and devoted their capital to wattle and sugar-planting, both of which industries can better afford the higher price of labour.

The yield for the 1913 season fell to 1,687,729 lbs. and 780 acres have either been abandoned or utilised for other crops.

Native African labour is quite unsuitable for tea-picking, which requires a more refined sense of touch and a greater manual dexterity than can be hoped for in the Bantu races.

The wages of indentured Indians ranged from 10*s.* per month for the first year to 14*s.* for the fifth year, which terminated the first indenture. The second indenture started at 14*s.* per month, rising 1*s.* per month per annum. These wages, of course, included rations, housing, and medical attendance.

The ruling rate of wages to-day is from 25*s.* to 30*s.* per month with quarters, food, and medical attendance.

4913. **(Sir Alfred Bateman.)** You have had about fifty years of growing tea ?—Yes.

4914. But until the last thirty years it has been of no size ?—Yes.

4915. And then you speak of Natal tea in 1883 that had a high reputation. What tea does that most closely approximate to in its qualities ?—Assam.

4916. Is it a high coloured tea ?—Yes.

4917. Is it very astringent ?—No.

4918. Is there any great proportion of tannin ?—Less than any other tea in the world, I believe.

4919. Well, that should have got you credit ?—Yes, but it has a rather peculiar taste.

4920. Is it used for mixing very largely ?—Yes.

4921. Is the tea you use here mixed ?—Yes, principally with India and Ceylon tea.

4922. You get your tea about as cheap or cheaper than in England, I believe ?—Yes.

4923. With only a duty of 4*d.* per pound ?—Yes.

4924. Does that keep out the imported tea much ?—No. Of course, there is not sufficient local production for our requirements—putting aside the question of the peculiar taste. There is so much imported and sold under well-known brands, such as Mazawattee, that people will continue to have that. There is an import of over 100,000*l.* worth every year.

4925. In 1913 the importations of tea from oversea countries within the Customs Union amounted to a money value of 297,000*l.* ?—Yes.

4926. And what is your production now ?—Our production has been only about two million pounds. And for 1913 it will be less than 1¾ millions. The consumption is seven millions.

4927. Wattle and sugar-planting has rather decreased the amount of tea grown ?—Yes.

4928. I rather gather it is a question of labour ?—Yes, tea cannot afford to pay the high price of Indian labour, and African labour is not of much use.

4929. Cannot the children be taught the work ?—Yes. The children did a lot of tea-picking, but their parents are now going into the sugar and wattle plantations, where they receive higher wages. You cannot take the children only into the tea industry.

4930. What remedy do you propose ?—I am afraid there is no remedy. I am simply putting the question before this Commission without any hope of redress.

4931. I suppose the only remedy is beyond our reference, is it not—higher duty—which we are not allowed to consider?—Quite so. It is only interesting, possibly, to you gentlemen as one of the effects of the stoppage of immigration from India, and, I suppose, of interest to the general public to know what they are paying for their fads. They are paying considerably more for imported tea than they could get Natal tea for.

4932. Well, Natal tea is 1*s.* 3*d.*; what do they pay?—1*s.* You cannot land tea into South Africa to-day at less than 1*s.* wholesale. The price of tea in Ceylon to-day is 8*d.* or 8¼*d.* There is 4*d.* duty and another 1*d.* for charges. You cannot land it to-day at under, say, 1*s.* 1½*d.* per lb.

4933. But if there was a bigger demand for the tea do you think you could grow the other kind of tea without this peculiar flavour?—No, I do not think so. All Natal tea tastes the same when it is drunk as it is without blending.

4934. So you would have to educate South Africa to the taste of your tea?—Yes, that is so. Of course, a lot of it has already been done. A lot of Natal tea is sold in packets without blending. And in a tea-drinking country like this, with its freedom from tannic acid, it can be drunk all day without harmful effects.

4935. Do you know what is called Paraguay tea, otherwise maté, in South America?—No. I have not heard of it.

4936. It gets no market here?—No.

4937. There is a paragraph in your memorandum, which I do not understand, about wages. You say the wages of the indentured Indians include rations. Do you mean that rations, housing, and medical attendance are given besides?—Yes.

4938. What is the last paragraph as to the ruling rate of wages paid to-day?—You will notice that the verb "range" is in the past tense. Before the stoppage of Indian immigration they were indentured at 10*s.* per month, rising 1*s.* a month during the term of the first indenture. After five years they could then re-indenture at 14*s.* to 19*s.* Women were paid half, and children according to age. That immigration is now stopped, and instead of paying 14*s.* a month for time-expired men we have to pay 24*s.* or 25*s.*

4939. That is nearly double the wages. That must be very bad for the industry?—Yes, only the old-established firms who have their labour up to a very high state of efficiency can afford to keep on.

4940. **(Mr. Campbell.)** I see you have 1,173 acres not in full bearing, 4,600 acres in full bearing, and 12,705 acres not yet planted. Is that the total area available in Natal for tea-growing?—No, that is the area held by the present growers, and land which is lying fallow. I expect it will never be used.

4941. You estimate that when all the tea land belonging to the present estates is planted you will have about 50 per cent. more tea than the consumption of the Union?—Yes.

4942. Would you be able to export that?—Yes, to the London market for blending, particularly the cheaper grades of Souchong.

4943. What is the objection to Natal tea that you require to mix it with Ceylon?—Peoples' taste. It has a very peculiar taste. It would be interesting for you to taste it. It is very noticeable and takes some getting used to.

4944. Has the Indian tea had the same history in this country as in Australia—that it displaces China tea?—Yes.

4945. The taste here is for Indian or Ceylon tea?—Yes.

4946. If you could export this surplus to some other country, why is it that you require any further taxation to enable you to develop the industry?—We should only require to protect our local market and dump the surplus. We should not require any further protection.

4947. Would your export of tea be a dumping process?—Practically.

4948. And according to that you have very limited opportunities for tea-growing?—Yes, there is only a certain belt on the coast which is available.

4949. Dumping is a most unprofitable kind of business, is it not?—No, it is to keep your local price up. Take Australian sugar, for instance, dumping serves to keep the price in Sydney at £9*l.* a ton all the year round.

4950. Is there not a vast difference between the dumping argument as applied to manufactures and as applied to primary industries?—You can scarcely call this a primary industry.

4951. Your costs do not come down in the same proportion as those of the manufacturer?—They do come down to some extent.

4952. I think you will admit that dumping in regard to a primary industry is rather a freak?—But can you call tea-manufacturing a primary industry? There is a great deal of difference between the tea bush and the finished product. It goes through a lot of different processes.

4953. **(Mr. Tatlow.)** You produced a larger amount in 1913 and imported over 3½ millions. Allowing for what was consumed here, was the rest exported?—Yes, practically, and you must understand that not the whole of Natal tea that is produced is sold in a pure state. Even local growers import tea for blending.

4954. You must have exported over one million pounds, according to these figures?—You must understand that the Union does not include Rhodesia. We export a lot to Rhodesia.

4955. The balance was practically all exported?—Yes.

4956. Is it your contention that with the present means of production, conditions of labour, wages, and so on, that the planting of tea is not a profitable business?—Considering the rise in the cost of labour it is scarcely profitable, except for those factories which have been established so long that their machinery and labour are highly efficient. I quote as an instance one plantation which had expended a large amount in planting trees for four years and never produced a pound of tea, because it is not till the fifth year that the first crop comes along. Well, after waiting all those years they decided it would be better to plough all the tea in and grow wattles. Their labour was not efficient—it was efficient for weeding and planting, but not for picking. They recognised that if they doubled the price of their labour it could not pay them, so they gave it up.

4957. **(Mr. Sinclair.)** Can you tell us how much per pound imported tea has been increased by the stoppage of Indian immigration?—I do not know that the stoppage of Indian immigration has put up the price of imported tea, but the price of tea has increased in India and China—quite apart from the stoppage of Indian immigration here.

4958. I understood you to suggest that one result of that stoppage was that the cost of tea imported here had increased?—No, not necessarily, but if they buy imported tea instead of locally-grown tea, of course, it is dearer to the consumer.

4959. Meantime there has been no increase in cost?—I do not think so, outside the well-known brands; the bulk of the tea is only brought in by a few wholesale firms, and I do not know whether their prices have gone up. Practically every grocer has his own brand.

4960. **(Sir Jan Langerman.)** Is tea-growing in general a profitable occupation at present?—No, it is not.

4961. Do they work at a loss, or what?—No, although I think that even some of the bigger firms are running at a loss.

4962. Even when working on a large scale?—Yes, but they eke out with sugar.

4963. That is due to the wages you have to pay to the Indians?—Yes.

4964. You could not set Kaffirs at that work ?—No, the Kaffir can only pick 19 lbs. per hand per day, against the Indian's 25 to 30 lbs.

4965. So the whole question hinges on the wages ?—Yes.

4966. Unless you can get those wages reduced, there will be no advance in tea-growing ?—No.

4967. You anticipate that the acreage under tea will diminish as they can make use of it for more profitable cultivation in other directions ?—Yes.

4968. So we must look forward to tea as a vanishing industry in Natal ?—Yes, I am afraid so.

4969. And nothing will save you except getting cheaper wages ?—I do not think so. The only possibility is that a new source of labour for the other industries may be found, as, for instance, tropical natives—that would release a large number of Indians for the tea industry, and I think they would turn to that industry in preference to the others.

4970. The importation of foreign labour is out of the question ?—I am speaking of Nyassaland labour, for instance.

4971. That is foreign to the Union. You must keep that out of your mind. But should you overcome the prejudice against foreign labour, would Chinese do ?—No.

4972. There you would have cheap labour and very efficient for tea-picking. Suppose they were to be imported, could you not make a profitable use of them ?—Yes, I think so. I do not know how the rate of wages would run. Of course, the Chinese recruited for the Rand were paid a fairly high wage.

4973. They are accustomed to tea plantations in China ?—Yes.

4974. Would they not make good tea workers ?—Yes.

4975. Would you not advocate the introduction of Chinese to work this industry ?—Not if they were to be let loose on the country afterwards.

4976. Of course, I mean under control : you would not advocate it ?—No, I think not. We have enough complications at present.

4977. What other industries could you put on this acreage of tea which you give here—wattle-growing ?—No, maize, sugar, and anything that will grow on the coast belt with a high rainfall.

4978. So it would really be an advantage to let tea go, and to substitute in place of it sugar and wattle-growing, which would be more profitable to the country generally ?—Sugar would be more profitable for the time being, but it would not be ultimately. It will be as profitable as cabbages later on.

4979. Then you look also to the sugar industry going down ?—Yes, to some extent. It is being overdone.

4980. It will be a poor look-out for Natal then ?—We shall find other things, I suppose. I forgot in that connection to mention that under the Mozambique treaty its sugar goes into the Transvaal duty free. That will make a difference in the future if it is renewed. I do not mean to say that sugar will not be profitable, but it will not be any more profitable than market gardening. The whole of the Zululand coast has been taken up by sugar planters, and as soon as the supply exceeds the demand, the present high prices will have to come down.

4981. **(Sir Alfred Bateman.)** Is not the demand a long way from having reached its highest point ?—No, I think not.

4982. Will not the native consumers here consume a lot more in time ?—Oh, yes, no doubt in time.

4983. Would it not be doubled ?—I daresay it could, and probably more.

4984. Surely that means a very large market ?—Yes.

4985. Now, in regard to tea, you give the capital at present as 343,000*l.* You do not give any figure of the interest paid on that, or the yield on that ?—I have no figure. We have no compulsory statistical records here.

4986. I am sorry to say that your statistics are not as perfect as they might be ?—No.

Mr. D. Fowler, Vice-President, Natal Sugar Association, and Mr. Edward George Arthur Saunders, J.P., Managing Director, South African Sugar Refineries, Ltd., called and examined.

4987. **(Sir Alfred Bateman, to Mr. Fowler.)** You have been good enough to prepare a paper which I have only just got copies of. Will you please read it ?—Yes, it is as follows :—

The sugar industry during the last few years has undergone many improvements, both in manufacture and cultivation. The beginning of this advance dates back to about the year 1907, when improved methods of cultivation began to be felt, also the advantage of modern machinery, which the mills gradually erected. Added to this, more attention was given to the questions of chemical control and improved methods of manufacture, and consequently the subject is now better understood, and the importance of scientific knowledge more appreciated. Prior to 1907 only one mill in the Colony had any system of chemical control, whereas now it is becoming the exception for a mill of any size to work without a chemist.

The work of cultivation has also been studied, and more attention paid to proper systems of manuring, &c., and whereas up to about seven years ago the average crop of cane cut per acre was about 20 tons, this has now increased to about 30, *i.e.*, 50 per cent. more than it was. Also the improved results in mill work brought about by new and modern machinery and better control in the factories will be apparent by a glance at the following comparative figures, supplied by one of the largest estates, for seasons 1906–7 and 1912–13, from which it will be seen that the improvement has been very considerable, while the figures of cane cut per acre for the same period are also given :—

Mill Work.

Year.	Sucrose in Cane.	Glucose.	Purity.	Extraction.	Tons Cane per Ton Sugar.	Density, Beunne.
	Per cent.	Per cent.	Per cent.	Per cent.		
1906–7	15·98	·47	86·9	62·9	12·89	10·8
1912–13	14·09	·68	85·1	73·9	9·18	9·0

Cultivation.

Cane cut per Acre.—Tons of 2,000.

——	Acres Cut.	Gross Yield.	Average.
		Tons.	Tons.
Season 1906–7 -	2,337	54,137	23·16
„ 1912–13 -	2,910	89,090	30·6

It will be observed that the figures of mill work show that cane containing 15·98 per cent. sucrose in 1906–7 took 12·89 tons of cane to produce a ton of sugar, while in 1912–13 cane containing 14·09 per cent. sucrose only took 9·18 tons ; while the cane return

per acre planted was: 1906–7, 23·16 tons, and 1912–13, 30·6 tons.

The above figures are supplied by one estate, and, while they cannot be taken as representing the whole production, they are a fair indication of the general improvement, as most planters and estates have improved their methods both in mill work and cultivation.

The conditions under which the industry is working are in many ways better than in the past, but in others not so good. On one hand the planters have been deprived of the regular and reliable supply of indentured Indians from India, which was not only much cheaper but good. On the other hand, modern systems of work and improved results have placed the industry in a much stronger position; and while it was difficult to make more than a very moderate profit formerly, many of the better estates have recently made large profits, and from the point of view of labour the stoppage of indentured Indians has forced planters and others to utilise the native labour of the country much more than formerly, and, although wages are higher, it is proving satisfactory; and so long as we receive sympathetic treatment from Government, there does not appear to be any serious danger of cultivation being stopped for want of labour, as at prices which the industry can now afford to pay there should not be much difficulty in obtaining all the labour required, as, although the mines pay higher wages, the natives much prefer agricultural employment, which is above ground and not largely underground, as in the case of the mines.

There is a protective duty of 3*l.* 10*s.* per ton of 2,000 pounds on all sugar entering the Union from abroad, with the exception of the sugar grown in Portuguese East Africa, which is admitted into the Transvaal free of duty. This is the result of an old agreement made by the Transvaal Government with the Portuguese, by which, in exchange for the privilege of importing labour for the Transvaal mines, the Portuguese obtained the right of free entry of all local-grown products into the Transvaal. This agreement was subsequently renewed, and remains in existence for a further period of five years, but applies to the Transvaal Province only, and not to the rest of the Union or Rhodesia. In addition to the direct protection given by customs duty there is also an indirect protection through the railway, all Colonial produce being carried at lower rates than imported articles of the same kind over the railway system of the Union. These preferential rates also apply (in the Transvaal only) to Portuguese East African products.

The sugar interest has represented the unfairness of the introduction of a foreign bounty-fed sugar being allowed into the Union under the same privileges as the local-grown sugar, and has requested the Government to bring in legislation imposing a countervailing duty, but this the Government has not seen its way to do; and until the termination of the present agreement, there does not appear to be much chance of relief, as although the admission of this sugar is only allowed into the Transvaal State, and in the past has not had very much effect on the local-grown product, it will (as the production increases in Natal and in Portuguese East Africa) have an adverse influence on the sugar industry of Natal.

To sum up: The prospects of the industry in Natal may be regarded as good, and probably more promising than at any former period, as while there has been a very great increase in production, we are still unable to supply local requirements, the consumption being about 20 per cent. to 25 per cent. greater than the production; and while new mills are being erected and existing mills are increasing their output, there is but little prospect of our overtaking the consumption of the Union for some few years, as consumption is undoubtedly increasing, and the probability is that any advance in production will be counterbalanced by increased consumption.

Mr. Saunders remarked: I would just like to point out in regard to the paragraph of the paper you have just read which runs as follows: "It will be observed "that the figures of *Mill work* show that cane "containing 15·98 sucrose in 1906–7 took 12·89 tons "of cane to produce a ton of sugar, while in "1912–13 cane containing 14·09 sucrose only took "9·18 tons, while the cane return per acre planted "was, 1906–7, 23·16 tons, and 1912–13, 30·6 tons," that the class of sugar made during 1906–7 was not similar to that made in 1912–13. Had the two methods of work been identical, the difference in the figures, approximately speaking, would have been 2·89 instead of 3·71.

4988. **(Mr. Tatlow.)** The sugar industry seems to be in a promising condition?—Yes.

4989. Are you satisfied with the labour conditions?—The labour conditions are so far satisfactory that we can obtain what we require, and I think the labour will be procurable for any extension that is likely to take place.

4990. Is the production confined to a few large firms or is it distributed among a considerable number?—A considerable number. There are several large mills, and there is one firm which has four large mills, but in addition to that there is a fair number of small mills. But a great deal of the production of cane is done by small growers who supply the mills.

4991. **(Mr. Sinclair.)** You told us that the bulk of the cane is produced by small growers. Are those who grow the sugar coloured?—**(Mr. Saunders.)** No, the sugar is produced by small growers, who are almost invariably Europeans. In one or two instances they are Indians, but the labour they use is coloured.

4992. I want to see how far the labour can be done by the white worker, if it can be at all. You say the bulk of the labour is coloured?—Yes.

4993. Is that due to disinclination on the part of the white worker to do the work, or because he has not the staying power and cannot well do it?—I think it is largely due to both. The labourer in the sugar fields of the coastal districts has to work under very very stringent conditions for a European; that is to say, in the work of cultivation and in cutting. I think he could do it, but the conditions are not those which he would choose. Then another great objection to the white labourer from his point of view is working alongside the black man. That is more or less derogatory to him, and he would certainly not do it unless he was absolutely forced by stress of circumstances.

4994. In some Colonies it is suggested that the work in connection with the cultivation of sugar is not a white man's work; in other words, that he cannot do it without a deteriorating effect. Can you offer any opinion to the Commission on that question?—I should say, as far as our local conditions are concerned, that is quite right. I do not for a moment say that he cannot do the work. He can, because he does it already or similar work in vocations that are considered to be suitable. But you must remember that we have a large black population here. That population remains here, and naturally these people are looked upon as those who have to do the manual work, and the rough, unskilled labour. I do not think there is any physical reason why the white man could not do the work.

4995. Supposing that there were no coloured labour here, could the industry be carried on successfully, do you think, by white labour if it were available?—If the white labour were available, and the conditions were such that the protection were sufficient, I should say, yes.

4996. The protective aspect is outside our terms of reference. I am now speaking of physical fitness and capacity to do the work. Supposing there were a sufficient number here and no coloured labour, could the white worker do the work from a physical point of view?—I should say, yes.

4997. Without signs of deterioration appearing in his offspring?—Yes, because it has been tried in other parts of the world under conditions very similar to these which obtain here. Not that we have tried it here, but we must take account of what is done in other parts of the world. It is being done in Queensland and the conditions are similar.

4998. Apart from what is being done or is not being done in other Colonies, from your knowledge and experience you think that the white worker is physically capable of undertaking work of this nature, if it were necessary for him to do so?—Yes.

4999. **(Sir Jan Langerman.)** Do you mean to imply that the white worker could work in the cane fields and do the same work continuously for twelve months and compete with the coolie?—I consider that he is physically fit to do so.

5000. For a short period. But could he do it day after day?—It is extremely difficult for me to answer that question from personal experience, because, as I have already said, it has never been tried here. I can only suppose that given similar conditions he could do so.

5001. Could you work your mills with white labour profitably under present conditions?—No.

5002. The altered conditions would be in the direction of higher protection?—Yes.

5003. Now, what amount of sugar is being introduced from Delagoa Bay?—Those figures have been given you in detail.

5004. What percentage of the local production is it?—Last year it was about 8,000 tons out of a gross consumption of 120,000 tons.

5005. So 8,000 would not materially affect you to-day?—It does not affect the gross consumption, and as far as one can see, provided it remains at a sufficiently low quantity, it will be all right, but, of course, the danger of East Coast sugar from our point of view is first of all that we are increasing our own output, and if the products of the East African ports increase very considerably and they send a large quantity into South Africa, it must affect us.

5006. You know the character of the Portuguese. Do you think there is any likelihood that they will increase their supply?—Yes, it has nothing to do with the Portuguese; they are all European companies. I do not think there is a single Portuguese company in East Africa.

5007. How long have they been producing sugar in Portuguese territory?—I cannot tell you offhand, but I think about eighteen years.

5008. Would it be as long as the Natal sugar industry?—No.

5009. So that during eighteen years' work they have only been able to produce 8,000 tons per annum?—No. I should explain that Portuguese sugar is exported largely to Lisbon, where they get a rebate of half the Portuguese duty. So that when it started it was with the view of supplying the Portuguese market. They got an enormous concession by having half the duty allowed. But that amount is only up to a given quantity. The moment that is exceeded any surplus they have must find a market elsewhere. The first market they naturally look to is the Transvaal. In the event of not being able to consume it in the Transvaal, they have still to look out for other outside markets.

5010. So you have a fear that in the near future they may increase their exports to this country?—Yes, and we have not only a reasonable fear, but you may say that it is a certainty.

5011. As regards the future of the sugar industry, have you any fear at all that in the next twenty years the sugar will become so cheap that you will not be able to grow it at a profit?—I think I can better reply to your question in this way. We can afford to produce sugar here so long as we have the conditions of our local market, but at the present time the rate that we are paying and that we are likely to have to pay for our labour, makes it very questionable whether we can afford to produce that sugar and put it on the world's markets. I do not know whether that gives you a reply to your question.

5012. As long as you have control of your local market you will be satisfied, I understand?—Yes, we can go on indefinitely—that is, of course, supposing that present conditions exist. Supposing that the Government suddenly took it into its head to turn this into a free trade country then we should have to stop.

5013. You say that with new mills being erected, and existing mills modernised, output is increasing, yet there is little prospect of our overtaking consumption in the Union. Surely that should be the reverse?—No. That is to say, I am speaking now of the Natal Province; I am not dealing with East Africa at all. At present the production of Natal is roughly 100,000 tons, and the consumption of the Union is 120,000 tons, so that we have that difference to catch up before we overtake our own consumption. But during that time the consumption is increasing also.

5014. In spite of erecting new mills and enlarging the capacity of the existing mills?—Yes, except that I consider that for some time to come we shall have the benefit of our own market.

5015. **(Mr. Campbell.)** You said that, provided the present conditions continue, you can compete in the world's markets?—No, we cannot.

5016. When you refer to present conditions, you are referring to the price of labour, are you?—When I refer to present conditions I refer to the conditions of the country—our local conditions—that is to say, that we can produce at the prices which we are getting locally for our sugar by paying the price that we have to pay for labour, but the price that we get locally is largely controlled necessarily by the amount of Customs duty.

5017. Do you anticipate any rise in the demands of native labour?—Yes.

5018. Do you think they will ask for more wages?—They will.

5019. That will be a continually growing quantity?—Yes.

5020. With respect to that agreement with regard to Mozambique territory; has not the Transvaal ceased to take labour from Portuguese territory?—No, they get the bulk of their labour from there.

5021. Does that agreement last for a fixed term? Suppose that the Transvaal ceases to take Portuguese labour, would that agreement automatically cease?—No. The position is this. It was originally an agreement with the old Transvaal Government. It afterwards came under what was called the "*modus vivendi*" which was brought in under Lord Milner's régime; the agreement was subsequently extended for a further period of ten years—five of which have now elapsed, and a further five years have still to run. It does not cease automatically.

5022. Is it likely to be renewed?—That is a question impossible for me to answer. Naturally, the industries of the country will oppose it, but, on the other hand, the Transvaal wants the labour.

5023. Would it make a great deal of difference to your business if it were to cease?—Yes, it would make a great deal of difference to this Colony if that sugar were not allowed in free of duty.

5024. In regard to these tables of mill work, I see there has been a decline since 1906 and 1907 of the sucrose content in the cane from 15·98 to 14·09. What is the reason for that?—That is a matter which is controlled by the seasons and the climatic conditions. For instance, even in one year you may have a figure in one month of 16 and a drop down to 12 in another. The analytical tests at the present moment are higher than those figures.

5025. And during the time that the sucrose content has gone down your extraction of sugar in the mills has gone up, so that whereas in 1906 it took 12·89 tons of cane to make 1 ton of sugar, in 1912–13 it only took 9·18; that is due to the increased efficiency of the milling?—Yes.

5026. Now in respect to Javanese sugar, the figures are 8 tons of cane to 1 ton of sugar?—Yes, and in some cases less.

5027. Is that due to a higher sugar content or extra milling efficiency?—No. As a matter of fact, their content is even lower than ours, but their class of cane is totally different. Our season is biennial. It takes two years to grow a crop, and the cane here is of a nature much more difficult to get the sugar out of.

5028. You have certainly made a vast improvement in the efficiency of your milling: do you look for any

considerable increase in efficiency in the future?—Not a very great deal, because our figures compare very fairly with those of Java. Of course, it is impossible to take so many pounds of cane to so many pounds of sugar. That depends entirely on the amount of sugar content in the cane originally and the nature of the cane. But our figures compare very fairly with those of Java, taking into consideration the difference in the class of cane.

5029. Your climatic conditions prevent you growing the same class of cane as Java?—Yes.

5030. So you have no possibility of reducing that by introducing Javanese cane?—No. Suppose we took our cane from Java, the conditions under which that cane is grown in Java are different to here.

5031. You spoke of there being a protection given by railway rates: how much per ton does it amount to?—It varies according to the distance and the difficulty in arriving at what that amounts to is in regard to the centre from which it is calculated. Supposing you are sending 50 miles or 1,500 miles—there is such an enormous margin between the two. But as a matter of fact that protection by railways is not much felt. It is not of very great consequence, and the reason of that is this: that the price is so largely controlled by the price at which the article can be sold at the coast ports. So the benefit through that indirect protection does not amount to a great deal really.

5032. Is it appreciable?—Yes, for long distances, but for short distances practically nothing.

5033. Does Mauritius sugar compete here?—Yes.

5034. By reason of the fact that the Conference lines give special freights from Mauritius here?—**(Mr. Fowler.)** No, I do not think so.

5035. But they give special rates?—No. The bulk of Mauritius sugar that is imported is naturally imported *viâ* the Cape ports, and the rates of freight are not unfair compared with those from Durban to Cape ports.

5036. In sending your sugar round there, you use the Conference lines?—Yes.

5037. Have you any complaint to make in regard to treatment?—No.

5038. **(Mr. Tatlow.)** I see that in 1907-8 you produced 35,000 tons of sugar and imported 53,000 tons. In 1913 you produced 96,000 tons and imported 29,000 tons, a total of 125,000 tons, showing an increase between those periods of 47,000 tons, or more than 50 per cent. That was all consumed, I suppose, in the country?—Yes.

5039. To what do you attribute that large increase in the consumption of sugar?—I think it is largely due to the fact that the native population is more and more taking to the use of it.

5040. Do you expect that the increase will go on at the same rate?—No, it will be a decreasing increase.

5041. Will that be affected by higher wages which will, no doubt, operate in course of time?—Yes, the more spending power a man has, naturally the more he will go in for luxuries.

5042. And it will affect sugar?—Yes, to some extent.

5043. In regard to protection by means of the railway rate: are not all preferential rates being gradually discontinued? Is it not the policy of the Railway Administration under the Act of Union to discontinue them?—**(Mr. Saunders.)** I do not think so. They have not done so up to the present. They were really brought in in the early days, more in regard to grain, so that a man growing grain a long distance inland could get it to market at a very low rate. It enabled him to produce, whereas otherwise he could not. That was the origin very largely of these rates. They were applied at the time to all Colonial produce; whether he grew grain or sugar he had the same privilege, and that position remains to-day. If a man growing mealies, for instance, in the Transvaal, had to pay the ordinary rates he could never export grain. I do not think the principle will be abolished.

5044. You say they still exist to a considerable extent?—Yes, they do.

5045. **(Sir Alfred Bateman.)** You spoke of the sucrose as dependent on the season?—Yes.

5046. It is quite beyond human control?—Yes, it varies enormously from season to season.

5047. You receive sympathetic treatment from the Government, and you say that as long as that continues there does not appear to be any serious danger of cultivation being stopped for want of labour. Does that sympathetic treatment refer to duties or to the railway rates?—No, it refers to the labour supply. The whole position is this. In the past and at the present time, the mines were those who employed most of the labour available. The sugar industry was carried on almost entirely by Indian imported labour. Now that Indian imported labour has been done away with, and we are now dependent on those Indians who are in the country and any natives available either locally or within the borders of the Union or outside, and my remark there as to sympathetic treatment on the part of the Government was as to how far the Government might assist us in procuring that labour; because I should like to point out that the mine can afford to pay very much more than the agriculturist for its labour. But although we cannot pay anything like the same wages as the mines, we can offer a better class of work.

5048. You give healthier work at a lower rate?—Yes.

5049. You refer to foreign bounty-fed sugar; is that the Mozambique sugar?—Yes.

5050. Is it a direct bounty?—Mozambique sugar came under the Brussels Convention as a bounty-fed sugar for the reason that it was allowed into Portugal at half the rate of duty. The Portuguese duty is about 24*l.* a ton, and they received 50 per cent. on 6,000 tons. I think it is declared to be bounty-fed sugar to the extent of 8*l.* 15*s.* a ton, by the Brussels Convention.

5051. Is there a special class of sugar consumed by the Indian population?—No, I do not think so. I think you mean the native?

5052. No, the Indian population.—No.

5053. One knows what the Indian sugar is, as a rule; it is a different class?—It is a low grade sugar; but they prefer the other kind here, so long as it is not made by means of animal charcoal. The native is now asking for the best quality of white sugar.

5054. **(Mr. Campbell.)** In 1910, your exports to the United Kingdom were 2,593 tons of sugar. How is it that you were able to export sugar then?—That sugar was produced by two mills in the country, the machinery of which was only suitable to make 96 test sugar, that is, sugar that has to be refined before going into direct consumption. The available refining power was not sufficient to deal with the whole of the sugar produced by these mills. The consequence was that for that one year, while the needful machinery was being added to the refinery, there was more sugar of that class than the refinery could handle, and there was no sale for it locally, so it was exported.

5055. In regard to treacle; have you any difficulty about the treacle output?—It is either used for manufacture into rum, which is mostly sent Home, or used on the land.

5056. Is there no opening for making a commercial spirit?—Yes, a considerable amount is used for making spirits.

5057. You exported for 1913, 5,840 tons of treacle to the United Kingdom, and the same year you imported 7,147 tons of golden syrup. Does the treacle go to England for refining and then is returned here?—No, the treacle you see exported is what is termed "refined treacle," and that is sent to England. The imports of golden syrup is Lyle's golden syrup, which is used very largely on the mines by the natives, who make a kind of liquor with it. Lyle's golden syrup has been used for that purpose for many years, and most of what you see there imported is used for that purpose. The treacle

exported is treacle from refineries after extracting all the sugar they can get out of it.

5058. Could you not compete for that native trade?—Yes, we are doing so. We are increasing our production of it every year.

5059. There seems to have been a continuous rise in the import of golden syrup from 1910, with the exception of a slight fall in 1913?—Yes, the imports have risen, and also the quantity that is produced locally. It has been more than quadrupled.

Durban, Wednesday, 25th March 1914.

Mr. W. B. WILSON, Government Officer in the Tobacco Division of the Union Department of Agriculture, called and examined.

5060. **(Chairman.)** You have been good enough to give a memorandum on the subject of tobacco-growing in Natal. We will take it as read.

The Memorandum is as follows :—

TOBACCO.

I HAVE the honour to address you a few words on the tobacco industry of this country, and I shall speak with special reference to Natal.

First I will invite your attention to a few figures concerning the whole of the Union.

TOBACCO IMPORTS into and EXPORTS from SOUTH AFRICA in £'s (exclusive of Rhodesia).

	1911.	1912.	1913.
	£	£	£
Unmanufactured	50,078	39,574	50,358
Manufactured	5,636	5,585	5,968
Cigars	62,591	54,479	49,923
Cigarettes	70,048	76,414	84,656
	188,353	176,052	190,905
	EXPORTS.		
Unmanufactured	304	2,748	—
Manufactured	6,396	11,831	—
Cigars	2,179	2,187	—
Cigarettes	8,364	7,452	—
	17,243	24,218	30,385

	Rhodesia to S.A.		S.A. to Rhodesia.	
	1911.	1912.	1911.	1912.
	£	£	£	£
Unmanufactured	29,597	28,728	166	—
Manufactured	1,027	259	17,278	16,633
Cigars	15	9	1,095	792
Cigarettes	660	317	38,678	40,741
Total £	31,299	29,313	57,217	58,166

These figures show that last year South Africa imported more tobacco from oversea than any year since Union, which would indicate that there is still a market for an increased production of the proper class of tobacco, but we who are interested in the industry do not want to feel even that we are bound by that limit.

Unfortunately, we have no figures to show the exact production in Natal, but before Union the export was as follows :—

1904	1,129,359 lbs.
1905	1,993,813 ,,
1906	1,627,687 ,,
1907	1,401,251 ,,
1908	1,520,381 ,,
1909	—

Since Union there has been no record at all kept of the output of tobacco in this Colony, but in my opinion it will not this year exceed 2,000,000 lbs., and other men who are familiar with the agricultural movements of the Colony think with me that the production has not appreciably increased since 1905. The growing of it has been a neglected industry, but the manufacturers have done their best with what raw material they could get, and the quality of the cheroots and cigars has improved, but much more improvement is needed, and it must be in the class of tobacco offered the manufacturer.

We mean now to foster the industry and improve the quality of the raw leaf, and to increase the production. The reason for the production not increasing in the past and keeping pace with the times is not due to the fact *that the soil and climate are unfavourable to producing tobacco*, but that the work has been in the hands of Indians, who handle the tobacco in so rough and dirty a manner as to keep the quality much below the standard that the climate and soil are capable of producing.

The Indian, the way he is worked to-day, is the curse of the Natal tobacco industry.

With the work of the Tobacco and Cotton Division the production of tobacco in the Transvaal has increased from 2,891,450 lbs. in 1909 to 8,093,562 lbs. in 1911. The 1912 crop was not so large as the 1911, on account of the drought.

Travelling in Natal I have met only three Europeans who are growing tobacco, and I know of one or two others—by Europeans growing it, I mean giving it their personal attention. But at present I have now on my list the names of 20 men who want to take up tobacco-growing under Government officers' supervision and try to produce cigar tobacco, and some of them are going to produce it. This will mean an increase of general production, for other men are sure to take up what they see a few men push to succeed. Then a great deal of this tobacco would be good enough to export to the United Kingdom, and could be exported if they would offer a little encouragement

The United Kingdom imported last year (1912–13) 92,913,652 lbs. of tobacco.

Recently they have been encouraging the industry at home by allowing a rebate of one-third the Excise revenue on tobacco grown in England and Scotland, and by granting 6,000*l.* per annum to foster the industry in Ireland. The total production in the United Kingdom for 1912 and 1913 was 129,226 lbs.

If they would grant a similar thing of one-third the Customs duty to South African-grown cigar tobacco and South African cigars, I am sure that Natal could in one year's time send them some very good leaf.

The present duty on tobacco being shipped to England is 3*s.* 8½*d.* per lb., and on cigars 7*s.* per lb.

(Chairman.) In your memorandum you state the tobacco imports into South Africa in 1913 is 190,000*l.* What is the value of the local production in the whole of the Union?—It will be roughly 500,000*l.*

5061. So that South Africa produces about 75 per cent. of the total consumption?—Yes, about 60 or 75 per cent. of the total consumption.

5062. Then you give the figure of exports from South Africa as 30,000*l.* Where does that go to?—A good deal to the United Kingdom and some to the Continent, to various parts of Africa, and a small bit to Australia. But the largest part goes to the United Kingdom. The largest part is manufactured tobacco,

and is known in the United Kingdom as "Boer" tobacco.

5063. Is that used as it comes from South Africa or mixed with other tobaccos?—To a large extent at present it is used as it comes from this country.

5064. It is not used for mixing?—Not much.

5065. Now turning to Rhodesia: the Rhodesian figures of imports and exports in the Memorandum are outside those you have previously given?—Yes.

5066. I see there is a large exchange between South Africa and Rhodesia: Rhodesia sending approximately 30,000 pounds of tobacco into South Africa, and the Union sending 60,000 pounds to Rhodesia?—Yes; that is in round numbers.

5067. What is the reason of that exchange: is it a different quality produced in the two countries?—Largely a different class, and if you analyse it you will see the exchange is largely due to the raw leaf (unmanufactured tobacco) that comes from Rhodesia; is manufactured in the Union; and manufactured tobacco shipped to Rhodesia, as cigarettes and pipe tobacco. You will notice that I have not given the figures for 1913; those are not available as yet, and in my opinion they will not be as large on the side of South African tobacco exported to Rhodesia as in these previous years, because recently some factories have started in Rhodesia that are manufacturing to a larger extent Rhodesian tobacco. The export to Rhodesia is most largely cigarettes. There are very few cigarettes in this country manufactured from locally grown tobacco of the Turkish type. Some of that type has recently been grown in the Cape, and a few cigarettes manufactured, but nearly all the so-called Turkish cigarettes are imported into this country. And a large part of that importation to Rhodesia will be tobacco, cigars, and cigarettes that are imported into the Transvaal or other parts of the Union and re-exported to Rhodesia.

5068. Now, of the different portions of the Union of South Africa, which has the soil and climate best adapted to the production of tobacco?—Well, in order to give you an idea of that, I shall have to give you a few preliminary statements. There are several different classes of tobacco; there is tobacco suitable for the manufacture of cigars, cheroots, and cigarettes, which are again sub-divided into Turkish tobacco and tobacco of the Virginian type and that which is suitable for making pipe tobacco, and plugs. The production at the present time is, in the Transvaal, about three-quarters of the entire production of the Union; that is, nearly all pipe tobacco, and Virginian type, cigarette tobaccos. Now, in the Cape, there is a small production of the Turkish type of cigarette tobacco. In Natal, there is a small production of the cigar type, which is manufactured here into the so-called Natal cheroots or Natal cigars; but as to which one of the Provinces of the Union is best adapted for the growing of tobacco as a whole would require one with more experience than myself to say very definitely. Of course, one would assume from those figures that the Transvaal, which grows about 75 per cent. of the total production of the Union, was the part most suitable for the production of tobacco; but I have been through a great part of the Transvaal and a great part of Natal, and I am able to state that if Natal had the same amount of time and interest and energy and money expended on the production of good quality tobacco that the Transvaal has had, the production of Natal would, in my opinion, be in excess of what it is in the Transvaal at the present time. The soil and climate in this Province are, in my opinion, better suited for the production of tobacco of a good class, suitable for export or manufacture into cheroots, or mixing with American tobacco, than the Transvaal. As to the Orange Free State, they have never grown very much tobacco, and I have never been through that country, and so I cannot say. In regard to the Cape, they have grown some good tobacco, but I have never been through the country.

5069. If the soil, climate, and general conditions of Natal are so suitable for the production of good tobacco, why has the production gone back?—It has not progressed, but I do not think it has gone back either. It has fluctuated. If you have noticed my figures for Natal from 1904 to 1908, the largest figure of the lot is for the year 1905. Then there was not another one up to 1908 that was as low as 1904, but the 1909-10 figures are not given, owing to Natal coming into the Union, or some other reason, but from other sources we find that the value of the tobacco exported to the Transvaal is at this time 108,768*l*. That figure is not given on the statement prepared for you, but would show that it is about 1,500,000 lbs. judging from the usual price, which is 2½*d*. to 4*d*. per lb. This year, people who have travelled through the tobacco districts, and myself, are strongly of the opinion that the production is larger than it has been for the last number of years. But the main reason why the production of tobacco has not gone forward in this Province is because it is in the hands of coolies, and up to the present no Europeans have given their attention to it. The Department of Agriculture has not given it any attention or assistance.

5070. You say it is in the hands of Indian coolies: do they work it for their own account or for European owners?—For their own account, in some cases owning the land and in others paying rent and having full control of the crop, and in a very small percentage of cases growing for Europeans on a wage or percentage basis.

5071. Why have Europeans not taken it up more?—Because, in my opinion, the Indians started the industry at the beginning. They flooded the market with this cheap tobacco. There was a sale for it at such a price that the European could not make a living or make any money, and he could not compete with the Indian.

5072. How do you propose to remedy that state of affairs?—I propose to remedy that state of affairs by going among the Europeans and getting a number of them that are willing to grow tobacco on the right lines and by the proper methods; then they will be able to produce a much superior article to any that is grown in Natal, and something that will not really compete with what is grown by the Indians, but with the tobacco that is grown in the Transvaal or is imported into this country. Then, as this production increases, the Natal manufacturers will begin to use this leaf to the exclusion of the cheaper leaf.

5073. **(Mr. Campbell.)** Is there any excise duty on tobacco in South Africa?—On cigarettes only.

5074. So that you will have fairly heavy protection for the industry?—The Customs duty is 3*s*. a pound on the imported leaf and 6*s*. per pound on cigars.

5075. Is that not rather a heavier protection than in any other country where tobacco is grown?—No. In the United States, for instance, the protection is really larger than that. The protection varies according to the different classes of tobacco, but for the cigar tobacco, which the Department of Agriculture is really trying to establish the production of in Natal, it is one dollar and eighty-five cents per lb.; that would be about 7*s*.

5076. Does not the United States impose a considerable excise on locally-grown tobacco?—No, only on the manufactured.

5077. Provided that you could improve the quality of your tobacco, do you think you could compete in the world's markets?—In Natal, it is my opinion that they could, because they can grow tobacco here more cheaply than in the Transvaal. I have had experience in both places. Here they have a better rainfall; they do not have to irrigate the crop, whereas they have to do so in parts of the Transvaal. The Transvaal has tried it and could not compete at the prices offered, but I believe Natal can compete.

5078. What is the average production per acre of leaf here?—About 1,000 lbs. per acre.

5079. That is fairly high?—Yes, quite a good average.

5080. **(Mr. Tatlow.)** You stated that the Department of Agriculture was doing nothing to encourage the growth and cultivation of tobacco?—I mentioned

that in the Province of Natal up to the present year the Department of Agriculture has done nothing.

5081. What do you expect them to do?—I expect them to disseminate information among the farmers as to the proper methods of growing tobacco.

5082. Have they begun to do that now?—Yes.

5083. Is it at the instigation of the tobacco manufacturers that they have moved?—More at the instigation of the farmers, and to a certain extent at the instigation of the tobacco manufacturers. As an illustration of the fact that the manufacturers here are anxious that the tobacco shall be improved, one manufacturer has offered a prize of 10 guineas for the first 100 pounds of Natal-grown tobacco leaf of good uniform colour, suitable for wrapping cheroots. Another has offered 5*l.* for the best 1,000 lbs. of cigar tobacco grown in the Province by Europeans from imported seed.

5084. Can the tobacco manufacturers themselves not do a great deal to disseminate the needful knowledge?—Some of them are doing that. A good few have from time to time sent their men through the districts and they always explain to the growers why it is that they cannot give as much for this class of tobacco as they could if it were better, and they tell them how to improve it. Well, this improvement is not taking place as much as it might or could have, because it has been in the hands of the Indian coolies.

5085 How many factories are there at present in Natal?—In Natal there are six of some size and there are other smaller ones.

5086. Your exports are improving, though the amounts are not yet considerable. They have risen from 17,000*l.* in 1911 to 30,000*l.* in 1913. You do not give any figures before 1911?—No.

5087. Are the exports entirely of recent years?—Before 1910 it was all from the different Provinces, and it is entirely of recent years, I should say since 1908, because, if you will notice the statement as to tobacco grown in the Transvaal, up to 1908 it was only two million pounds. Ever since the war there have been a few parcels exported, but it has not been of any appreciable amount until about 1908. And then the first figures I give are 1911.

5088. Although it is not a big sum it is progressing?—Yes.

5089. Is it showing signs of increasing?—Yes; because the quality of tobacco is getting better, and the farmers are able to produce it more cheaply, as they learn how to apply better methods, and co-operative societies are coming into force in the big tobacco-growing districts.

5090. **(Mr. Sinclair.)** Then tobacco-growing in Natal, as a white man's industry, has scarcely commenced?—It began this year. It is the beginning now, and this year 1914-15, the Department of Agriculture has put on a tobacco man to look after the Province, and to instruct the growers how to produce a good quality of tobacco that can compete in the markets.

5091. That would seem to recognise that the field is a suitable one for growing the product?—All the manufacturers, the tobacco experts, and the Tobacco Division of the Union of South Africa, are strongly of opinion that Natal is a very favourable field for the production of good tobacco.

5092. I see in your statement that in travelling through Natal you only met three Europeans who were growing tobacco?—Yes.

5093. Does that represent all that is done by Europeans in the meantime?—Well, I would not like to say it is all, because I have not met all the men.

5094. Does it approximate to all?—That approximates to it very closely.

5095. In order to establish the industry, the first thing, I take it, is to get more Europeans to take up the growing of tobacco?—Yes, that is the first step.

5096. Will the work involved in growing that tobacco be done by European or by native labour?—It will be done by native labour—the actual manual part of the work.

5097. The work will be done by native labour under the direction or supervision of the European?—Yes, under direct supervision.

5098. Then what is to be added to the existing condition of things under which tobacco is grown by the native? The direction of the European?—Yes, the direction of the European.

5099. Do you look to the direction of the European as sufficient to inaugurate an industry that up to the present has not been able to make its way in Natal?—If the European will apply proper methods I have reason to believe that he will; I am of opinion that it will inaugurate itself.

5100. The tobacco that is grown at present in Natal is a coarse tobacco, is it not?—A very large part of it.

5101. Used largely, so I gather from a statement that has been put before the Commission, for the purpose of consumption by the Kaffir in the shape of snuff, is that so?—A large amount is used for consumption by the Kaffir and a certain amount for the manufacture of Natal cheroots, of which there is at present an output of about a million a month.

5102. And you think that when you get this industry set going it will be able to compete with tobacco grown in Rhodesia?—Yes.

5103. Under present conditions Natal seems to get the labour of manufacturing the raw material that is grown in Rhodesia?—Not Natal, but the Union of South Africa.

5104. Is that likely to continue? Will in time the manufacture not take place in Rhodesia?—As I stated before, the manufacture has in the last two years been started in Rhodesia, and is taking much larger proportions, but the amount of raw leaf that has been imported in the last two years from Rhodesia is not considerable.

5105. A good deal seems to depend on the future. You are really at the commencement of an experimental stage, so far as the growing of tobacco by Europeans is concerned?—Yes, so far as the growing of it by Europeans in Natal is concerned, we are just at the beginning of an experimental stage, but judging by the class of tobacco that is grown by the coolies with their primitive methods of handling it is very very strong—almost conclusive evidence—that under the direction of Europeans, and with the care that tobacco should have, it will be a very profitable industry here.

5106. **(Mr. Garnett.)** You say there are very large areas in Natal suitable for the growing of tobacco; what are they doing at present?—The most suitable areas at present are being cultivated by Indians.

5107. You say you want Europeans to take up tobacco?—Yes.

5108. And you say there is a very large area which could grow tobacco in the occupation of Europeans?—Yes.

5109. What are those areas growing to-day?—A good deal is growing nothing. Some of it is running stock, and a good deal is being held by people who have the money to hold it.

5110. What stock is it running?—A few cattle, mostly Kaffir farming. And a large part is growing mealies. Perhaps the larger part.

5111. You are very desirous of increasing your production and exporting mealies, are you not?—Yes.

5112. I only ask this question—I want to know whether it has yet been demonstrated to the occupier of the land that the tobacco which you wish them to grow is an economically better paying proposition than what they are engaged in to-day; I presume it all hangs on that?—Yes.

5113. The occupier of land will naturally grow the crop which he is convinced gives him the best return, is that so?—Yes.

5114. Has it been demonstrated as yet that tobacco is a good substitute for mealies?—Yes, where soil is suitable.

5115. Is tobacco a crop that, if grown under good conditions and at places favourable for production, will pay better than mealies?—I say yes.

5116. But you have not yet been able to convince the owner or occupier of the land that it is a better proposition?—In Natal, there has been no attempt to convince them of that until this present season, and I have now twenty men who have already said to me that they are willing to take up the growing of tobacco and give it their direct supervision. That is a very small start. But all things must have a beginning, and in the Transvaal it has been so demonstrated to them that the production from 1909 to 1911 nearly quadrupled itself.

5117. But I wanted for the moment to confine myself to Natal. It is only just now that efforts are being made to convince owners of the soil that tobacco is a payable proposition?—Yes.

5118. And you have not yet proceeded very far in that direction?—No, in Natal itself there have not yet been grown any crops by these men.

5119. Then at present it is entirely in the experimental stage?—Yes.

5120. And the results of this experiment will largely depend on the success or failure of these farmers who have taken the matter up?—Yes.

5121. At present, there is not sufficient evidence forthcoming to say with certainty that tobacco will be a more favourable substitute for the crops that are now being grown?—Well, to my mind there is.

5122. But you have not demonstrated it—you are in the process of demonstrating it?—Yes, we are in the process of demonstrating it to the Natal farmers.

5123. Of course, however great the desire may be to cultivate tobacco, unless it is proved beyond doubt to be a more remunerative crop than anything else the farmer can grow, it will have to stand down, won't it?—Yes, naturally.

5124. **(Mr. Bowring.)** Referring to your table of exports, before Union a certain quantity was exported from Natal; now was that exported into the other Provinces of the Union, or did it go oversea?—About 90 per cent.; well, I should say all of it, practically speaking, to other Provinces of the Union. A few pounds went to the Continent and different places here and there, but out of the total in the last year, 1907–08, roughly 1,000,000 lbs. went to the Transvaal itself.

5125. The greater part—in fact, practically all—of this export went to the other provinces of the Union?—Yes.

5126. And do you anticipate that under the new regulations and under European supervision you will grow tobacco for export beyond the Union, or is it only for consumption within the Union?—We will grow first for consumption in the Union, and then it is my opinion and hope that we will grow it for export beyond the Union.

5127. You think that the quality you will produce then will be suitable for manufacture in the United Kingdom and other European countries?—Yes, I do not expect to reach that quality in the first year, nor even the second, but in the next five or six years.

5128. It will be difficult, will it not, to change the quality of your tobacco, having regard to the coarse material that you are growing at the present time. That will have an effect on any new seed you bring in?—In the market it may to a great extent, and it will be to that extent simply because it is in the hands of the Indians. No doubt, if the quality of the tobacco that was being produced to-day was being produced by Europeans whom you could go to and teach and instruct how to produce a better quality, it could very readily be changed, but as it is now, we have to go on with the production of a better quality by Europeans that will gradually replace the poor quality that is being produced now by Indians.

5129. You do not advocate the destruction of the coarser qualities that are now being grown?—To a certain extent I do, and that would be an ideal condition if you could get the people to do it: That is, to take these tobacco farms where the coolies are growing tobacco and buy them up for the Europeans to give their personal supervision. Then the production of this inferior tobacco could be replaced by the production of a better grade.

5130. It would be done immediately, instead of having to do it gradually in the course of years?—Yes.

5131. **(Mr. Lorimer.)** I gather from your memorandum that you regard the soil and climate of Natal as being very suitable for growing good tobacco?—Yes.

5132. And that the industry has been prejudiced in the Province because of the growth of rank and inferior tobacco in small patches by Indians?—Yes.

5133. And that the pollen of these inferior plants of theirs is carried into areas where the better class of leaf is grown and so serves to deteriorate it; is that so?—It is true indiscriminate cross pollination of tobacco causes a deterioration in the progeny of the cross pollinated seed. The Indians have allowed this cross pollination in their fields until the tobacco has deteriorated, but these fields are not grown in close proximity to plantations of good tobacco.

5134. What class of tobacco is grown by the Indians?—The class of tobacco that is grown by the Indians varies. Some is better than others, some is fairly good, but there is nothing really superior.

5135. Are these cigars you have submitted of your own growth?—They are of Natal manufacture, from Natal-grown tobacco, with the exception of the cover leaf. And the cover leaf we hope to grow in Natal later on. Some of the Natal-grown tobacco is used as cover, but is not of as good quality as this.

5136. These, of course, are not made from the tobacco that is grown by the Indians on their own patches?—Yes, from the tobacco that is grown by the Indians on their patches.

5137. Then you mean to say that the whole of the tobacco grown in Natal now is of one quality?—No, not of one quality. Some is better than others, but none, *par excellence*, superior.

5138. You want to mend that state of things?—Yes.

5139. And your remedy is what?—To get the growth and cultivation of tobacco into the hands of Europeans who will give it proper attention.

5140. You have a large protective duty, have you not?—Not what you can call large. It is fairly large—3*s*. per lb.

5141. And the growth would be so many pence?—Yes.

5142. That seems to be a very respectable protection?—Yes.

5143. I suppose there is no excise duty?—No, except on manufactured cigarettes.

5144. Is that enough?—Just at present I should say it is. We are not advocating a larger Customs duty.

5145. You also suggest in your paper a preference, but as you are aware, that is outside our reference. We cannot consider it at all?—Yes. But if it could be given, Natal would very soon export larger quantities of tobacco to England.

5146. We would like to see that. Of course, if the quality were equal we would rather have it from here than any foreign country, but what I want to be at is if you have the soil and climate suitable, why you don't grow better tobacco?—We are going to.

5147. It struck me that you had developed in Rhodesia in a very striking manner, but I want to know why you have fallen behind?—Natal is behind the Transvaal and Rhodesia, because in Natal, during the past few years, the Department of Agriculture and the Europeans have not paid any attention to the cultivation of tobacco.

5148. You think you have had less attention than the other Provinces?—Very much less. There has only once, for a period of two years, been a tobacco expert in Natal who has given his whole attention to the production of tobacco, whereas Rhodesia for the last few years has had tobacco experts, and the Government has built warehouses and bought the tobacco that the planters grew, and paid them a fair

price, stored this tobacco until they could get their money, and, if necessary, dropped a little on it in order to build up the industry.

5149. That is, of course, outside the operation of the Union Government?—Yes. And in the Transvaal, prior to Union, the Government voted 10,000*l.* per annum for the building up of the tobacco industry, and they imported a number of tobacco experts who organised the tobacco division. Immediately afterwards the production jumped up from 2,000,000 to 3,000,000 and then to 8,000,000. Then, prior to that, nobody would have thought anything very great about the soil and climate of the Transvaal for growing tobacco, and nobody has in the past thought anything great of the Natal Province for growing tobacco, but just recently, since Union, they have come to find out that the Natal Province is possessed of a soil and climate that are very suitable for the growth of tobacco, and they have now organised the Natal Branch of the Tobacco and Cotton Division (Union Department of Agriculture).

5150. You now hope to obtain as much attention as the Transvaal has hitherto had?—Yes.

5151. Well, if you have the soil and climate, and can get sufficient help from the Agricultural Department, I suppose there is no reason why you should not very soon do exceedingly well?—I can see no reason at all why we should not soon produce as good tobacco in Natal as in any part of the Union.

5152. **(Sir Alfred Bateman.)** Has any of your tobacco been sold in England by any of the tobacco combines?—You mean the Imperial Tobacco Company of Great Britain and Ireland?

5153. I was told several years ago that it was difficult to get any new tobacco sold in England in the shops, because so many are tied shops?—Well, South African tobacco is sold. I am not sure whether it is sold by the Imperial Tobacco Company, but if it is not, it is quite likely that it very soon will be.

5154. I have been told more than once that the great thing is to get the thing sold by them, as soon as you can get a tobacco worth selling in England?—If you can get it sold by the combine, yes, in some respects it is a good thing, but in others a bad thing to get the manufacture of any class of tobacco in the hands of one combine.

5155. There is one other point. I do not know whether you have been home recently?—No, I have not, and I am, therefore, not very familiar with the latest developments of the retail tobacco trade on the other side.

5156. My point is in reference to the Imperial Institute. I believe they would be in a position to be of some service to you in regard to your tobacco industry. When you go to London, if you call at the Institute you will find they have there the productions of the various Colonies on exhibition, and there are the productions of the different South African Colonies among the rest of the Empire. Therefore, it would be well worth your while to see that any new specimens of tobacco which you grow here are sent home to be exhibited at the Imperial Institute in London?—Yes. I may mention that the Department of Agriculture is making up an exhibit, to be used for that purpose, at the present time.

5157. It is very desirable that the Imperial Institute should give a better idea of the new products of the different Colonies, including South Africa, and you say that the Department of Agriculture here is attending to that now?—Yes. I do not know whether it has already been shipped, but if not it will be shipped before very long. It will consist of tobacco as well as the other agricultural products of the Union.

5158. There is a great advantage in being thoroughly up to date in showing your wares at the Imperial Institute. It is a valuable advertisement?—Yes, naturally. It should be of considerable benefit.

Captain H. Noyes, called and examined.

5158A. **(Sir Alfred Bateman.)** You have been so good as to prepare a paper about the *Euphorbia Tirucalli*, with a view to showing that it is a very promising source of rubber in this country. This paper has been circulated and carefully read by the members of the Commission. I do not think it is necessary to ask you to read it out, but we will ask you a few questions.

The following is the memorandum referred to:—

Rubber.—The Euphorbia Tirucalli.

The *Euphorbia Tirucalli* grows in profusion in most of the valleys in Natal up to, and within, 40 or 50 miles from the sea. It exists in countless millions in the valleys of the Tugela, Umkomaas, Umgeni, and Umzimkulu rivers, and may be cultivated in the coastal belts of Natal and Zululand. It is found in its best development in the lower lands and adjacent to water; nevertheless, it will thrive where moisture is practically non-existent. It responds amazingly to culture and fertilization.

The latex from the tree contains percentages of rubber varying from 12 per cent. to 15 per cent., and an average of 74 per cent. of resin. According to Dr. Schidrowitz, the rubber, when extracted, is worth 80 per cent. of Para rubber. So far as my knowledge goes, the resin has not been produced on a marketable scale, and although a few tentative experiments have been made in regard to the suitability of this product for the manufacturing of varnishes, I have no authentic data to submit in this respect. I am informed, however, that a first-class varnish has been produced from this resin, and that, provided sufficient quantities were available, a large varnish industry could be inaugurated in Natal.

Under the name of "Almedina," the coagulum, without separation treatment, has been exported in quantity from Portuguese West Africa, and the product of a similar species of the Euphorbiaciæ, indigenous to Hawaii, is now being studied and treated in that island with a view to its exploitation on a large scale (*vide* "The Rubber World" Feb. 19th, 1914.)

Many other varieties of the Euphorbia family exist in Natal, but, so far, the *Tirucalli* has been the only variety it has been found practicable to work.

Commercial Possibilities.

The official returns of the Tirucalli Rubber Concession, Ltd., lately working the Tugela Valley Concessions, give as their return of crude coagulum produced up to 25th March 1913, 223,836 lbs. net weight, roughly 100 tons. I have no record of the output subsequent to that date.

The majority of this coagulum has been sold either privately or on the open market, at prices varying from 4½*d.* (when first produced) to 10*d.* per lb. In Germany there exists a notable demand for the produce, but, as in London, unless a settled supply is forthcoming, the users of the material are disinclined to quote a specific price.

Within the last few months, Dr. Schidrowitz—the well known authority on rubber—has been at work on a process designed to enhance the value of the product considerably. I am informed that his process is a success and that the value of the material will exceed 1*s.* per lb., but I have no definite knowledge of the details.

I am instructed, however, that either in its original or its altered form the product will have innumerable uses; such as for mixings; for use in insulation work; for pavements and flooring; for the manufacture of "chewing gum," and very many other purposes.

But there appears to be no doubt that, apart from the possibilities of the material in its crude form, scientific experiment will open up new fields of commerce in which the treated rubber may profitably be employed.

The Labour Question.

I am indebted to the Native Affairs authorities for permission to recruit labour free of the ordinary licence or fees throughout Natal. Notwithstanding, it has been found next to impossible to procure natives for the work without first advancing them several months' wages, in spite of the fact that in most cases my centres of work (camp) have been established in the neighbourhood of the natives' kraals.

During the initial stages of inaugurating the industry, it was found that the natives were prejudiced to some extent against the work: the reasons given being that recruiters engaging "boys" for the mines had informed them that the latex of the tree was highly injurious and would inevitably blind all those employed in the work. Those who have been prevailed upon to engage themselves, however, have quickly satisfied themselves that no injurious effects are to be feared from either tapping treatment or otherwise handling the product. It is regrettable, however, that the misrepresentation alluded to has gained a good deal of credence among the natives; and the first objection offered by a raw native is usually to the effect that white men have informed him that the latex will kill him.

In the Tugela Concession the average rate of wages, whilst the industry was under my personal control, amounted to 16*s.* per month per head, the majority of the hands employed being young boys whose ages ranged from 10 to 15 years. Good accommodation was afforded them, and no charge was made for tapping knives, cups, medicine, and occasional supplies of meat.

The work itself requires no exercise of strength and in two or three weeks the boys become sufficiently dexterous to be left, comparatively speaking, to themselves, or under the supervision of an induna. As a rule, in the hot weather season, an industrious boy could bring in his appointed quantum by two o'clock and employ the remainder of the day as he chose.

Alternatively he could continue working and be paid at the rate of 3*d.* per 5lbs. of extra latex brought in. To the best of my recollection no full-grown man ever worked overtime in this manner; those who did so being "umfaans," who were also the first to bring in their appointed weight.

Woman labour has been tried by me on several occasions and found to be utterly impracticable. Not that the work is difficult or arduous—as is the case with cultivating their fields—but because, from an employer's point of view, the women are unreliable and untrustworthy. Instances are innumerable where women have tapped for an hour or so and then walked miles to water in order to adulterate the latex.

On three occasions I have visited Durban and Maritzburg and conferred with some prominent Indians with a view to obtaining Tamil labour for the industry, having in the first place secured the concurrence of the authorities for the employment of Indian labour. Although I have guaranteed up to 3*l* per month to each Indian, with further payment by results—in the case of families—for each woman or child employed, I have not been successful in obtaining the services of a single Indian.

If procurable they would be infinitely preferable to Kafir or Zulu labour, as I know from personal experience in the far and middle East. Even if paid by results only, a single Indian could in the best tapping season—from October to April—obtain without difficulty his 30 lbs. of liquid latex per diem, and on this basis he could earn from 3*l.* to 4*l.* per month. Moreover, he could live in a climate suited to his tastes, and be employed in a manner to which he is by nature and training eminently fitted.

Working Costs.

On a Monthly Basis. One Man.

A native, after a few weeks' training, produces 15 lbs. of liquid latex per diem, equal to 8 lbs. solid coagulum or rubber; the cost of one native being, as a maximum, 35*s.* per mensem, inclusive of food.

Allowing for 25 working days per month, the output of one man will be 200 lbs. rubber, worth at 7½ per lb. (the price in last November, with Para at 1*s.* 1*d.*)—6*l.* 5*s.*

Estimating superintendence, transport, packing, treatment, freight and charges at 10*s.*, the resultant profit will be:—

Wages and food of one native	35*s.*
Other charges	10*s.*
	45*s.*
Value of one native's output	6*l.* 5*s.*
Profit balance	4*l.*

It should be noted, however, that small boys (umfaans) are more suitable to the work than grown natives, the pay of the former being approximately one half of the men's.

Suggestions.

As there exists in my mind no possible doubt that we have in Natal an unfortunately neglected but extremely promising industry of enormous possibilities and unlimited scope, I would suggest that representations to the proper quarters, drawing attention to the valuable natural asset we have near at hand, might have the following desired results:—

(*a*) The standardization of the product.

(*b*) The opening up of Continental and British markets.

(*c*) The encouragement of farmers and others to plant and cultivate the tree, if and where land unsuitable for other cultivation is available.

(*d*) The establishment of an experimental station on a small scale to determine the practicability of manufacturing varnishes, water-proof paints, and other articles, locally.

Or, alternatively, the appointment of a qualified official whose duty it would be to advise land-owners and prospective planters as to the proper method of cultivating, treatment, and other details connected with the industry.

(*e*) The establishment of a special rate as to railway freights until such time as the industry is on a proper footing.

5159. **(Sir Alfred Bateman.)** Of course, an important factor appears to be that there is an unlimited supply?—Quite. When I say unlimited I would, of course, like it to be understood that the young trees that are not in bearing should be allowed sufficient time to arrive at the bearing stage.

5160. Do you consider that it has been satisfactorily tried on a big scale?—Yes, undoubtedly so.

5161. Have you ever communicated with the Imperial Institute about this?—Yes, and Professor Dunstan has reported on it.

5162. Do you know whether his report is published in the Bulletin?—I do not know whether it was, but I had a special copy of the report sent to me.

5163. And no doubt he got information from the brokers as regards the commercial value of the rubber?—Yes.

5164. He would be sure to do that?—Yes, I think so, but in the case of a new rubber like this coming on the market it requires a certain amount of time before any manufacturer will take it up seriously, because, as a rule, he is not certain of a consistent supply, and what he requires more than anything else is the assurance that this consistent supply will be forthcoming.

5165. And that is the difficulty here?—Yes, that has been the difficulty so far.

5166. You want it taken up by commercial companies?—Yes.

5167. I suppose the people who are interested in these things are continually forming companies to exploit new articles of this sort?—Yes, they are forming companies, but I think that, as a rule, the matter stops there.

5168. It is not very easy to get money just now?—I do not think so.

5169. **(Mr. Lorimer.)** What is the difficulty of ensuring a regular supply? You began by stating that it grows in such profusion that you have countless millions in the valley of the Tugela. Is it the labour difficulty?—Labour has a great deal to do with it.

5170. Because you appear to have a very valuable product here and one of which some of the values are quite evident. I am interested in the possibility of making a first class varnish. Has anything been tried in that way yet? Yes, several people have made varnishes which have been submitted to me, but not knowing anything about varnishes I cannot say whether they were good or permanent or otherwise.

5171. What did the people who made it say?—They have quoted very good prices.

5172. And they would not offer more than it was worth, probably less?—Yes, but hitherto my course of action in this matter has been to produce the crude material and leave the development to others.

5173. Would the same people attempt to produce both rubber or rubber substitute and varnish, or would it have to pass through two different hands?—It would have to go through several processes and the resinous contents would have to be submitted to quite different groups of manufacturers.

5174. There would be two different sets of manufacturers who would have to deal with it?—Yes, quite. The varnish manufacturers and the people who use it for mixings and other purposes would constitute quite different classes of manufacturers.

5175. Well now, if the product of these trees was used for one purpose, would the residue be available for the other?—Yes, if it were used for its resinous contents only the rubber would be a by-product.

5176. If you were using it for making varnish?—Exactly.

5177. Then it seems as if you had in this article something well worth further attention, because, as you know well enough, both things bring good prices in the market?—Yes.

5178. Did these people who made the varnish for you give any indication of the quality through the prices? Did they indicate what would be the value of the varnish?—The price which they stated—of course, it was not an authoritative estimate, but it was given to me in good faith—the price of the varnish manufactured from this material would be in the neighbourhood of 8s. a gallon.

5179. That is the price of a very ordinary varnish, but it would no doubt be possible to subject it to fresh treatment and further refining?—Yes.

5180. What do you think we could do for you?—Well, my principal object in being here to-day is to draw public attention to the existence of this rubber-producing material in Natal.

5181. Well, we can take notice of it, of course. Are you hopeful of being able to overcome your difficulties in respect to labour?—Yes, I think so, because there is at the present moment in London a plant being established on the recommendation of Dr. Schidrowitz which he is confident will increase the value of the crude coagulum by 60 per cent.

5182. That is a plant which you would have the opportunity of keeping going constantly?—Exactly.

5183. And if you had regular steady orders, could you do that?—Up to a certain limit. I have been asked in London for hundreds of tons a month of this material. Well, of course, in the present state of the labour market, hundreds of tons a month is out of the question.

5184. Thousands of tons I think you said?—It would amount to thousands of tons in the year.

5185. Suppose somebody started a plant to manufacture this material of yours, would it be possible for you to keep that plant supplied upon a scale that you might determine with the people beforehand?—Yes.

5186. Suppose you were to say to these people I can give you 1,000 tons a year—by way of illustration—and that suited you, would it suit them or would 1,000 tons a year be too little to justify the erection of a plant for this purpose?—Do you mean from my point of view would it be too much, or from the point of view of the people who bought it?

5187. I mean from their point of view. What I want to get at is this: Is it worth while erecting a factory for the purpose of utilising this product to the extent to which you could supply it?—I think it is quite worth while.

5188. And have you persuaded anybody to adopt that opinion?—No, I have not, because I have been waiting to see if this process is an unqualified success. I am now unofficially informed that the process is a success.

5189. And you are now in a position to put your capacity forward to these people and say, I can do so-and-so if you will enter into a contract with me?—Well, with a certain amount of organisation I could do so; it would be very difficult to promise large quantities at present.

5190. But that brings it back to the point we started from. Can you guarantee any manufacturer a sufficient quantity of this material to justify him in erecting a factory on a limited scale?—On a limited scale, certainly.

5191. The limited scale, of course, would have to be a scale large enough to make it worth his while spending the necessary money in the erection of the factory, and you know better than I do, no doubt, what is the minimum that would be really useful and profitable. Could you keep that going?—Yes. We have had contracts for 10 tons a month, which we have kept people supplied with.

5192. But no one is going to erect a factory to handle only 10 tons a month?—Not on a big scale.

5193. But when it comes to hundreds of tons a month the question resolves itself purely into a matter of labour?—Yes; the supply is there waiting to be extracted.

5194. What interests me is this, whether it is possible for you to so arrange your output as to keep in working order the smallest factory which would be economically possible?—My answer is yes.

5195. Then you are now in a position to go forward to the people with whom you have been negotiating and say, "I can start you and keep you going to this extent"?—Yes, provided the order is not too large, and provided our labour is properly organised and available.

5196. Of course, you have the extent of the order in your own hands. You can easily say to anybody, I can give you no more than that, but you cannot expect anybody to enter into a contract with you unless you were able to say, I will give you this minimum quantity—whatever it is; you cannot put any qualification on it and say, "If I can find sufficient "coloured labour to do the work I will be able to do "so-and-so, and if not, not"?—No; but with a small contract like the one we had I could find the available labour.

5197. Is this material one that could be worked in conjunction with, or rather alongside of, other forms of rubber? Could it be made an adjunct to the business of an existing company, or would they require to erect a special plant to deal with it apart from anything else they have at the moment?—I am told that they would require a special plant if they used the material as it is. But it has been used for mixtures with pure Para, Ceara, and Castilloa rubber; it has been used as a mixture for manufactures which do not require such purity as is usually insisted upon.

5198. I should imagine that your plan would be to get it in the hands of the manufacturers and let

them find out what they can do with it. It will involve a good deal of experimental work on their own account, no doubt, to find out if it is necessary to build a factory for the exclusive manufacture of this material, but if it can be worked with something else I have no doubt that many people would try it?—Over 120 tons have gone home from Natal, and I believe the majority of it has been sold at very favourable prices, although the figures have not been given me, but evidently there was a demand for the stuff or it would not have been sold.

5199. Well, at any rate, we will be glad to do what we can for you by making the thing more widely known?—Thank you.

5200. And I shall watch with interest what you do about the varnish. I should like to know something more about it?—Yes.

5201. **(Mr. Bowring.)** Have you been able to overcome the native prejudice against working with this material?—Yes, it is only a matter of a few weeks, when they thoroughly understand that it is not harmful in any way.

5202. But the prejudice, I suppose, is still there?—Yes, among those who have not worked in it.

5203. So you have probably no difficulty at the present time in obtaining the labour you require?—We have had no difficulty in getting sufficient labour for experimental work, but when it came to producing on a large scale the want of labour was a very serious difficulty.

5204. From the prejudice, do you mean?—No, I do not think so. Of course, these concessions are mostly situated in the native locations, and the Kaffir will tell you, as a rule, that when he goes to a location he goes to rest and not to work. You can overcome that prejudice to a great extent as I have overcome it, but still it is there. He thinks he is rather hardly treated if he is asked to work when he comes home for a six months' rest.

5205. You mean when he comes home from the mines?—Yes, practically.

5206. It would seem that the labour required is more suitable to the boys than to grown-up people?—Yes.

5207. And those do not go away so very much from their places, do they?—No, they do not go to the mines; but there is a great demand for them as house-boys in Durban and Pietermaritzburg and other large centres.

5208. They go into the towns and enter domestic service?—Yes.

5209. And the women you find unsuitable altogether?—Yes, the women are unsuitable.

5210. **(Mr. Garnett.)** Would you be so kind as to describe as shortly and succinctly as you can the process to which this material is subjected?—Yes, certainly. The methods of tapping employed are practically the same as I have used in Para and Ceara cultivation. The treatment is practically the same. The question of tapping knives and the correct way of tapping the tree must be considered with a view to the greatest output with the least sacrifice of cortex or bark. The tree is tapped by making an incision with the knife, and the milky latex is caught in cups and coagulated by several methods. Acetic acid and tannic acid are usually employed, and afterwards it is coagulated and becomes hard. It is then treated by heat and pressed in moulds, covered with sacking, and is then sent home to the manufacturer. That is the whole process.

5211. Would you be so good as to tell me what is the vernacular or local name of the Euphorbia?—The native name is Umsululu. That is the variety which we exploit. Of course, there are others.

5212. I was recently in the neighbourhood of Tulumus River, near East London, visiting a farm, and there I saw quite a number of trees bearing a name which was known locally as the Nowboom as near as I could pronounce it. I was informed that this tree exuded a juice which people were very hopeful of being able to make into rubber. This tree was growing in countless numbers, and I was informed that people had already scientifically investigated its possibilities as a substitute for rubber or a probable source of producing rubber?—That is the *Euphorbia Candelabra*. I have been asked to go and advise on it, but I have not had the time. I am aware that people are experimenting with the tree. We have it here also in lesser numbers.

5213. At any rate, in this district the other tree is the more favourable?—Yes, it is better in every way. The tree grows quite close to Durban.

5214. Have Dr. Schidrowitz's experiments proceeded beyond the laboratory stage, as far as you know?—I am told, but quite unofficially, that his process has turned out to be a success, but he has not written to me to tell me so himself.

5215. You are not in a position to say what quantity he has experimented upon or has produced, whether it is a laboratory production or a production on a commercial scale?—No, I cannot say that. I have seen the product he has produced, but I cannot say whether he has produced it on a large scale since I left London.

5216. Of course, before the manufacturers can be induced to place large orders for this material, they would naturally wish not only to be assured of a supply, but also that the production on a big commercial scale would attain the same purity as the laboratory test. But you are not in a position to say as to that?—No.

5217. **(Sir Alfred Bateman.)** Besides the rubber tree that Mr. Garnett has referred to, there is also, I understand, the Landolphia growing to some extent?—Yes, there is the Landolphia in Zululand.

5218. From that variety you get quite a good class of rubber, do you not?—Yes, it compares very favourably with Para rubber, the difference is that with Para at 2*s*., Landolphia Kerkii, which is the Zululand variety, principally, would fetch about 1*s*. 8*d*.

5219. That does not grow here, does it?—No, only in Zululand, and the amount is limited. It also grows in swamps and places where collection is extremely difficult.

Mr. Julius L. Wides, Tobacco Manufacturer, called and examined.

5219A. **(Sir Alfred Bateman.)** You have prepared a paper which has been circulated among the members of the Commission, so I will not ask you to read it.

The following is the paper prepared by the witness:—

Tobacco.

The climate of the coastal districts of Natal is admirably suited to the cultivation of tobacco, and I have no doubt that, under better trade conditions, a quality equal to the best now known could be produced here instead of the poor rough leaf at present representing this article.

This indifferent quality (in comparison with tobacco grown elsewhere) is due to the fact that the cultivation of tobacco in Natal is now almost entirely in the hands of Indians, who, in order to handle the returns for their work as quickly as possible, in many cases cut their leaves before they are properly matured, and then cure them hastily and carelessly. The natural result of this is that when the article is put on the market it is not of the quality which it should be, and cannot compete with other tobaccos—even South African grown.

Our tobacco is too coarse, and the foregoing is one of the reasons for this failing.

It is practically impossible for a white man to compete with the innumerable Indian growers on a small scale.

Their joint crops are such a large percentage of the total that it practically forms the basis of market quotations, and, therefore, as production costs the white more than it does the Indian, owing to their

different modes of living, he (the white) makes little or no net profit, whereas the Indian may do quite well.

Years ago the quality of tobacco produced on the coast was much better than it now is, as then whites were the only growers, and, prices ranging from 1*s.* per pound upwards, they could afford to put more labour and care into their crops, and even experiment with Havana and other first-class seed, although this latter was not successful owing to the poorer quality tobacco having been grown to such an extent that the later experiments were spoiled by the plants being impregnated with the pollen from the more plentiful surrounding common plants.

At the present time Rhodesia is producing tobacco which finds a ready market in Africa and overseas at much better prices than local or Transvaal tobaccos can command, and, although they only grow about one-tenth of what we do, yet their returns equal those for the whole crop of Natal. This is the result of commencing with well-selected seed, and of careful handling of the plant, and the same results could be obtained in this climate under different conditions than those now ruling.

The Rhodesian grower has no unfair competition, and he also is not pressed to make forced sales, owing to the fact that the Government has taken a keen interest in this industry, and nursed it to such an extent that the farmer can obtain an advance of 75 per cent. of the estimated value of his growing crop, and, moreover, his crop is cured, sorted, and stored for him for quite nine months to mature. It is then sold, and any difference between the amount advanced and the total realised is paid over to him, less a small percentage for interest, handling, and storage.

Now Natal has also to compete in the Transvaal market with Mozambique, and, so far as Kafir is concerned, the consumer seems to prefer the imported article from our Portuguese neighbour, who can produce at even lower expense than our local Indians.

The Cape and Transvaal have great futures for pipe and cigarette tobaccos, but Natal tobacco is much more suitable for snuff, cigars, and cheroots, and could be improved to such an extent that a large export trade in the near future would be most probable.

What we want to improve the quality of tobacco is an export trade to sister Colonies and to Great Britain, under a preferential tariff.

This, I suggest, would give an incentive to the Natal growers to produce something that would be acceptable to the oversea consumer, instead of growing coarse leaf almost solely for the Kafir consumer of snuff—a small percentage only of the better leaf being used in the manufacture of cigars and cheroots.

With regard to the problem now touching the manufacturer, I may say that I have been closely allied to this trade since 1896, and find that the difficulties to contend against are more now than ever before in this Colony.

The cigar and cheroot industry is comparatively new.

Until 1896 Kafir cigars principally were manufactured in the Transvaal, owing to the heavy duty on Natal cigars going across the border—even raw tobacco from Natal was 6*d.* a pound duty till 15th April 1899.

These cigars were then made by Europeans, and were wholesaled at 7*s.* 6*d.* per 100, the cigar-maker earning 3*s.* to 4*s.* per 100, and the manufacturers were all Europeans. Since the alterations in the Transvaal duty tariff, this line is now sold at 2*s.* per 100, and the cigar-maker gets 1*s.* per 100, at which figure no European can earn a livelihood, and no European manufacturer can exist in this industry.

The conditions at present ruling in Natal cigar and cheroot manufactures are practically similar to the foregoing, there being so many young Indians who make this staple, and have ousted the older Indians.

That such a state of affairs does exist is entirely the fault of the Government, which has neither fostered nor protected this branch of industry, which is fast becoming a dead letter so far as the white man is concerned.

There has never been any protective legislation, nor, indeed, any notice taken of the many disabilities under which this trade has laboured so many years, and the number of firms who have "gone under" is considerable.

One cannot blame the man who works so cheaply (be he black or white) that he can cut the prices down to the finest point, and thereby oust his competitors from the trade.

Number one is the only person he has to consider.

It is significant that, at the present time, I do not think there are half-a-dozen European cigar-makers in the whole of the Union working at their trade, nor can a manufacturer afford to employ them owing to the afore-mentioned unfair competition. I personally have brought the subject many times within recent years before the proper authorities, but entirely without success, and matters are now so bad that the trade is almost in a state of collapse.

The effect must be even felt by "the great guns" of this industry, and the remedy, if remedy there is to be, must soon be found, or a very promising source of revenue to the Colony will be lost.

I do not consider that a granting of a monopoly would mend matters, but I know that in other tobacco-growing countries where "the powers that be" take an interest in the industry, the workman can make a comfortable living, the manufacturer has a fair return for his expended capital and energy, and the Government profits by levying protective taxes.

There is a source of considerable revenue to the Government here being completely ignored and overlooked; besides, if the industry was on such a sound footing as to be able to supply the requirements of the Union in this staple, what thousands of pounds could remain here that now go overseas to the several countries supplying the demand for "smokes." Again, there is no reason why Natal tobacco and cigars should not successfully enter into competition with those of other countries, and so provide another article to mention in the export list.

Even under present conditions, if cigars manufactured in bond partly from imported leaf (on which 3*s.* per pound duty has to be paid) were subject to a rebate of a like amount, a good export trade could be done, and a fillip given to this and other industries.

It is necessary that Government fosters this and other declining industries in order not only to secure revenue from exports, but also to encourage the influx of white population, which is always a source of revenue to an industrial country; and with suitable legislation, I have no doubt that scope could be made for the more rapid progress of the white races in the entire Union.

At present our industrial concerns do not even provide work for the rising generation.

In conclusion, I sincerely trust that the results of this Commission will prove of great value both to this Union and other portions of the British Empire.

5220. **(Sir Alfred Bateman.)** You say that as far as the native trade is concerned, consumers much prefer the imported article from Portuguese territory to that produced by the local Indians? Is there a duty on tobacco from Portuguese territory?—No.

5221. Under a special arrangement it comes in free?—Yes.

5222. And you suggest that you want a preferential tariff from the sister Colonies and Great Britain?—Yes.

5223. You are mainly in agreement with the evidence which we had this morning from Mr. Wilson?—Yes.

5224. You complain that the support of the Government has not fostered or protected this branch of industry, which is fast becoming a dead letter as far as the white man is concerned?—It should have been more protected than it is at present. For instance, to-day, tobacco is just like cabbage in this country.

In other countries you find tobacco is quite different to what it is here.

5225. But you have a protective duty?—Yes, from other parts, but that is not sufficient.

5226. You want protection against the other Provinces in the Union?—No, not exactly. It should be as at present in that respect. But no licence has been necessary up to the present in the tobacco trade, or even manufacturing, and, in fact, the natives are entirely spoiling the whole business.

5227. Do you want a licence for people to produce tobacco?—No, not exactly in producing it, but in selling and manufacturing an article like snuff, for instance. To-day, snuff is quite an item in this country, and it is made mostly by natives who hawk it about.

5228. Then you rather want protection against the natives?—Well, it should be, in a way, like other merchandise. You do not find in other countries that it can be hawked about without a licence.

5229. What other line is there which is licensed?—Everything is licensed here except vegetables. No line is sold to-day without a licence except vegetables, and tobacco to-day in this country is just like vegetables.

5230. There is no licence for the sale of snuff and tobacco?—No. And then there is another point. The manufacturers would have their name on every manufactured line, like cigars.

5231. **(Mr. Garnett.)** I do not quite understand why you think this licence would be any advantage to your industry. I should like to understand it?—If an article is simply thrown on the market it brings down the price. Tobacco should be different to vegetables. To-day it is just like cabbage. For instance, tobacco may be one shilling a pound towards the end of the season; when everybody throws it on the market it makes the price go down to 1½*d.* lb. That kills anyone in the industry.

5232. I see, what you want is to try and prevent a glut on the market—a great quantity being thrown on the market all at once?—Yes, there are hundreds of people throwing the article on the market at once, and that ruins the trade.

5233. You want to restrict competition?—It is not exactly competition, but tobacco should be different to other forms of produce. It should be controlled in the same way as in Rhodesia. In that country the tobacco producer does not throw his produce on the market in this way. He gets his price immediately the article is produced, but it is not forced on to the market, and the result is that the article is always of a standard quality, it keeps up the price, and everybody who is interested in it gets a benefit. Rhodesia is only producing about one-tenth of the quantity that Natal produces, but still the returns are nearly as large as Natal. The farmer is not so pressed there, because he can deliver his tobacco to the Government, which helps the industry, and he is not forced to throw it on to the market as he is here.

5234. Then you want an arrangement made whereby the tobacco is financed until it is ready to be put on the market at the proper time?—Yes. We get a bad name for the tobacco, because it is not assorted, and it is not the same quality every time, and we get a lot of disputes in consequence. The first quality may be "A" and the next "C," and so on.*

5235. **(Mr. Sinclair.)** Apart from the question of protection, which we are not allowed to consider, what form of Government help do you want in order to foster the tobacco-growing industry in Natal?—Well, it would be rather hard for the Government to only put on a small duty.

5236. Leave the question of duty on one side. We cannot go into it. Apart from duties, what form of Government help do you suggest to assist the grower in Natal?—First, there should be a better class of tobacco seed planted; secondly, no green cabbage should be placed on the market; tobacco should be stocked for a certain time by Government officials, and be well matured before it is ready for the market.

5237. Your first suggestion is that the Government should help the grower by education, and by instructing him as to what kind of seed he should grow in order to produce the best quality of tobacco?—Quite so.

5238. Is there no such instruction given by the Government in Natal at the present time?—No, there was not up till quite recently that I know of.

5239. Is there now?—I have seen an article about a fortnight or three weeks ago, written by a tobacco expert, but I do not know if it is in force.

5240. What you want is systematic instruction given by the State in the interests of the tobacco grower?—Yes.

5241. Have representations been made by your local Chamber of Commerce to the Government, or have representations been made to the Government direct?—There is not 2½ per cent. of European producers in the tobacco industry at present. I have written a few times myself on the subject of tobacco, and have pointed out where the present difficulties could be mended, but no notice was taken.

5242. Having in mind the small number of Europeans who grow tobacco in Natal to-day, do you think that if Government help was given in the shape of instruction, a large number would take to the growing?—Europeans certainly, because there used to be in former days more Europeans than Indians.

5243. And the labour that would be employed by the European growers, would that be white labour or native labour?—Mostly coloured labour.

5244. And your other point was that there should be some financial help given so as to store up the tobacco, and not flood the market?—Yes.

5245. Will the local merchants who take the supplies not do anything in that direction?—There used to be some merchants who took a great interest in the industry, and tried to help it as far as they could, but I am sorry to say it was all failure.

5246. Have the merchants who nursed it given it up altogether then now?—They have failed.

5247. Whatever interest they took, it was a failure?—Yes.

5248. And there is nothing for it now, you think, but for the Government itself to come forward and take an interest in the expansion of the industry?—That is what I think.

5249. **(Mr. Tatlow.)** What is the chief difficulty in producing a good tobacco? You spoke rather despondently of the industry, and you said that the quality of a good deal of the tobacco was like cabbage leaves. Is that due entirely to the grower of the leaf?—Yes, as well as not maturing it. After cutting the tobacco there is a way of maturing it. But the way they do to-day in many cases is to make beds in their huts out of the tobacco leaves. It may be quite strange to you, but so it is. Ninety per cent. of the leaf to-day is prepared in that way, and the tobacco gets a different quality according to how it is stored. A great deal is of a coarse kind, and it has an unpleasant smell. While you are here I have no doubt you will see the tobacco, and see how it compares with the produce of other parts of the Union.

5250. What is it that appears to you as absolutely necessary in order to produce a better tobacco? What is essential?—A different way of handling, and to give it time to properly mature. To-day the tobacco is taken off in Natal within six weeks or two months. It is taken off from the stalks and placed into heaps, whereas other plants take as much as eight months.

5251. Do you mean instruction by the Government is necessary?—Well, it should be through the Government, because no individual farmer can take any interest if no one suggested such a thing. As the industry stands to-day, the farmer must immediately have his return, *i.e.*, must sell at once.

5252. Why should not the manufacturer do all this? Is it not worth his while to go to some expense and trouble in this matter?—Well, it would be, but

* *Note by witness:*—

A quality	-	-	24 to 30 inches.
B "	-	-	20 " 24 "
C "	-	-	16 " 20 "
D "	-	-	12 " 16 "

when it comes to big quantities it is another matter. They have done something in this direction in the past, but it has been unsuccessful. It may be all right for one year, but when they have gone from one year to another and find it has turned out a bad speculation, they have given it up.

5253. Do you represent the manufacturers? For whom do you speak?—For the Chamber of Commerce and one of the manufacturers.

5254. How does that matter of selling without a licence affect the quality? That, surely, cannot have any serious effect on the quality of the tobacco sold?—Well, it is only treated as cabbage. You will find that tobacco is sold on the Natal market at 1¼*d.* per lb. It is a sacrifice.

5255. Whether it is sold by licence or not, they can only sell what the manufacturer produces?—Yes, but if it were differently organised, everybody would be induced to take up tobacco on different lines and a different quality would be produced. But to-day there is no encouragement to go in for a better quality.

5256. What opinion have you in regard to the question of growing tobacco? Should there be some Government control over it? Should there be some grading of the leaf before it goes to the manufacturer?—Grading should be the principal thing, certainly.

5257. Is that a matter which has been brought before the Government?—I have put it to them in different ways, and about three years ago I saw Mr. Marshall Campbell, who is the representative in Parliament for Victoria County. I had an interview with him, and urged him to do something to bring the matter before the Government, but nothing has been done until the present time.

5258. How many manufacturers of tobacco have you?—About ten here to my knowledge.

5259. Have you any manufacturers' association?—No.

5260. Would it not be desirable to combine and see what could be done by combined action to bring about an improvement in the present condition of the tobacco industry in Natal, and endeavour to get the Government to help the industry in the ways you have suggested?—There were so many Indians in the trade. I suppose that was the reason why there has been no combination.

Pietermaritzburg, Friday, 27th March 1914.

Mr. J. MARWICK, Vice-President; Mr. S. B. WOOLLATT, Member, Executive Committee; Rev. JAMES SCOTT, Member, Executive Committee; Mr. DUNCAN MACINTYRE EADIE, Secretary, of the Natal Agricultural Union, called and examined.

(*For the evidence of these witnesses on "Land Settlement" see page* 41.)

5261. **(Sir Alfred Bateman.)** You have come to give us information about various subjects connected with agriculture in this Province?—**(Mr. Marwick.)** Yes.

5262. **(To Mr. Scott.)** I understand that you have to leave soon, and would wish to be examined first. Have you anything to tell us as to the growth of mealies?—I have been studying agriculture in general in Natal for the last fifty years, and I am not satisfied that this country will ever be a very large exporter of maize, because some parts of the country do not get rain enough, and generally there is a failure in one part or another. For instance, we hear there is no crop at all in the Orange Free State, and therefore a great deal of the Natal crops, which are very promising, will be required in that part of the country. We will have to send a great deal to Johannesburg. But we cannot be certain of that at present; there may be heavy crops in other districts beyond Johannesburg, but I certainly do not believe that the export of mealies is to be one of our large industries.

5263. I think your rate was reduced to 10*s.* a ton when we met last?—Yes, but we had some exceptionally good years and sent considerable quantities before that. The rate was reduced to the lower figure, which had the effect of giving a considerable impetus to the exports of mealies, but I do not believe that South Africa will ever be a very large exporter of that particular kind of produce. I have a great deal more faith in wool, wattle bark, and some of the other industries.

5264. What other industries?—Well, I hope that the dairy and cattle industry is going forward. We have now got rid of a good many of our diseases, with the help of scientific men like Dr. Hutcheons, Sir A. Theiler, and Colonel Watkins Pitchford. We have overcome a good many of the most serious diseases which have been the bane of South Africa for the last fifty years. Sir Rider Haggard will remember what lung sickness was in the early years in Natal—what a curse it was in the country for forty years. We could not keep a herd of cattle without having it swept off. Then came rinderpest, foot and mouth disease, redwater, or East Coast fever, and I think we may safely say that we have now beaten all these, and unless we get some new disease, I think we have not much to fear on this score. There is only one serious one that I know of, and that is sura. We have not had it yet, but we nearly got it in South Africa, owing to the importation of camels, but through Dr. Theiler's knowledge it was stopped just in time.

5265. When was that?—Some few years ago. Some camels were brought into the country.

5266. **(Sir Rider Haggard.)** What are the symptoms?—I do not know.

5267. **(Mr. Campbell.)** It belongs to Northern Africa, does it not, and affects camels?—Yes, Egypt and Arabia. **(Mr. Woollatt.)** And India also. **(Mr. Scott.)** It affects all domestic animals almost, but we think we have now got the mastery of all these other diseases.

5268. **(Sir Alfred Bateman.)** Have you anything to say about the things you want remedying that affect agriculture in Natal?—I think the evils are mostly in our own hands to put right, by putting a little more hard work into the country.

5269. Labour, is that satisfactory?—It is not generally thought to be satisfactory. But it is improving—I think the native is improving as a worker. I think the difference between now and fifty years ago is very very great. I have been among the natives a good deal. I have been for thirty years a missionary among them, and I think there is a great improvement in their labour to-day, but it is not satisfactory. As compared with Indian labour, for instance, the latter is far more efficient. I believe that necessity will drive the native to be a better labourer, and although the nominal sum which I heard Mr. Angus mention may appear to be small, yet the labour is like all other low-priced labour, it is not very cheap in the long run. There is not a great deal done for the money, small though it is.

5270. It wants superintending?—It needs close superintending.

5271. **(Sir Rider Haggard.)** Is there a sufficient supply of this labour, if it is well treated?—It all depends on the price you expect to pay. I think there is a considerable reserve not yet brought into use, but it will gradually be brought into use. Of course, if we could get Indian coolies in Natal at the low rates

that have been paid in the past, the Indian would oust the native altogether from many employments. On the sugar and wattle plantations he is very much more skilful in the use of his hands.

5272. The ordinary native is getting 3*s.* a day at the mines, is he not?—I am not sure now. A couple of years ago I saw them earning 5*s.* a day at piecework.

5273. And here, it seems, he is paid 1*s.*?—Yes, 20*s.* to 30*s.* a month is very common.

5274. It is no wonder under those circumstances that labour is sometimes short?—No. Of course, he goes to the best market.

5275. If the men were paid a good wage, would there not then be enough, and would they not work better?—No, they do not generally work better unless you train them.

5276. At any rate, it is a fact that the effect of the wages paid is to send him to the mines rather than the farm?—Yes, to a considerable extent.

5277. **(Mr. Tatlow.)** Is the co-operative movement being established in Natal at all among the farmers?—I have just got up from the executive meeting of the Co-operative Union. We have now about 1,500 members, which is a very good share of the farming population of Natal.

5278. Is that the dairying industry?—No, wattles, mealies, and cattle. There are three or four dairies, but not on co-operative lines.

5279. Does your organisation do anything practical to encourage the establishment of these societies? What do you call your organisation?—The Agricultural Co-operative Union.

5280. Do you do anything practical to help these societies to establish themselves?—No. Any farmer can join our Society.

5281. What are the aims and objects of your Union?—To bring the produce of the farmers to market in the best way and cheapest manner, and to help them to get the best price for their produce; also to help them to get manures and implements at the lowest rate.

5282. Are you assisted in any way by the Government?—No, it is entirely self-supporting.

5283. It is purely a voluntary organisation?—Yes.

5284. How long has it been in existence?—About three years. There is a small capital. The shares are 5*l.* No man can have more than five shares.

5285. Is all Natal represented in your Union?—I think so. Our membership is increasing very very rapidly. Three or four hundred of our members have joined in the last six months.

5286. What constitutes membership? — Merely taking out a 5*l.* share, which can be paid up in ten years or all at once.

5287. Does the holder get any return on that at present?—No, not yet.

5288. Do you give any instruction on agriculture?—No, not yet.

5289. You have no staff in the way of skilled inspectors?—No, only a secretary, with a staff of clerks.

5290. Do you look forward to developing into something more useful even than your present functions? Do you expect to enlarge your sphere of operations?—Well, first of all, we would desire to see a reserve of capital, before we went much further. We are passing something like 200,000*l.* a year through our hands on a very small capital. We have no opportunity of enlarging our sphere of activity in the direction you speak of at the present time.

5291. Perhaps that may come?—Yes, we hope so.

5292. **(Mr. Garnett.)** Can you tell us shortly what steps have been taken and what progress has been made in improving your stock of cattle, sheep, and horses?—Well, I have no figures before me, but there is a very large importation. Hundreds of animals are brought out. I brought a dozen Jerseys the other day. I have taken to Jersey cattle now as a little amusement. I am retired now from all active work, and under this "no-freight" system there are hundreds brought from England and Holland and other countries. Sheep from Australia, horses from England and Australia. The Co-operative Union has been instrumental in bringing out a good many sheep from Australia. We take orders from farmers and see to them being brought.

5293. Are there many stud rams?—A good many stud rams and ewes. I am also President of the Royal Agricultural Society of Natal, which has its grounds down here, and the grounds are available for sheep which are being brought here to be sold. They have the use of the grounds there. They hire the show yard to place the sheep in while being sold.

5294. What class of horses are being brought?—All classes, from the blood to the heavy horse. Hackneys, percherons, and all kinds.

5295. Have you any export in horses?—No. The Orange Free State is much better suited for horse-breeding than Natal.

5296. I gather a great deal has been done to improve the breed?—Yes, during the last twelve months. We are about recovered from the East Coast fever, when our flocks were killed out in thousands. And many are now stocking with a better class of cattle.

5297. When that process is completed, the country will be stocked with a better class than before the sickness came?—Yes, we hope so, but unfortunately there is a class being brought in in large numbers from the interior which to some extent has done away with the good blood.

5298. But, on the whole, you are satisfied that good progress is being made?—Yes.

5299. **(Mr. Sinclair.)** Before East Coast fever swept away so many cattle there were a number of farmers who relied on cattle-farming alone, were there not?—Yes, before rinderpest came among the cattle there were a great many more. The rinderpest was in 1897 and the East Coast fever was only about five years ago.

5300. Has one result of that sweeping away of the cattle been to drive farmers into mixed farming more than formerly?—It has had that tendency undoubtedly. Men are now doing much more cultivation than before these cattle plagues came into the country.

5301. **(Sir Alfred Bateman to Mr. Marwick.)** I understand you supplement Mr. Scott's evidence?—I fully endorse the bulk of Mr. Scott's views, but I do not quite see eye to eye with him in one or two things. The first point was about native wages. Mr. Scott was asked whether if higher wages were paid to the natives they would work more. Well, my own opinion, and I am certain that I am correct, is that under present conditions the higher the wages paid to the natives the less they will work. They would be able to earn the money necessary to satisfy their requirements in a shorter time, and they would have all the more time to play and rest. The native's idea about work is not the same as the white man's. The native's idea is that he should only work a very little, and when he has married a wife or two he should not work at all.

5302. Is there any other point?—Mr. Scott has mentioned to you about the large importation of cattle and stock to improve the breed. The principal reason for the large importations of stock lately has been the offer of free freights by the shipping company, and also the fact that the red-water is no longer feared. A few years ago, before the East Coast fever came along, and previous to dipping, 95 per cent. of imported animals died of red-water, but since then the percentage has been reduced so much that people will now risk it. Formerly, it was only a few moneyed men who could afford to import cattle. It was impossible to have done that under the old conditions owing to the serious risk involved.

5303. Have you any other matter to bring forward?—**(Mr. Woollatt.)** I should like to say that I think South Africa has a great future as a cattle country, and Natal in particular. As Mr. Scott has pointed out, most of these diseases which we suffered from have now been overcome, and I think Natal compares with any country in the world as a cattle country. I do not think it will be a great many years

before we see beef exported from South Africa. During the last three or four years we have had exceptional droughts, but I do not think we ought to let those act as a sort of indicator as to what we should expect in the future, and the same applies to mealies. I differ from Mr. Scott on that point, and I think that with proper agricultural methods South Africa will be a great exporter of mealies in the future. Mealies is a crop that will stand a lot of drought if it is properly treated, but in the past, with certain exceptions, mealies have not been properly treated.

5304. How about dairy produce, will you do without importing that?—Yes, and I think that a great change will come about. We have always looked upon the coast lands as not suitable for farming cattle on account of the tick, but now since these dipping methods have been in vogue we have gradually improved, and I think we shall see a big advance in the dairy industry in South Africa during the next few years, and it will be conducted on the coast lands.

5305. **(Mr. Garnett.)** With regard to imported cattle, that is cattle imported from England or Holland under guarantee or veterinary certificate that they were free from tuberculosis, have you ever known them to react here when they have been landed?—Yes.

5306. I should like very much to hear about it?—**(Mr. Woollatt.)** This is a matter we have been considering for some time. I have imported a lot of cattle and still import them, but the trouble is if they are condemned in England we are saved expense, but if they are condemned here we are the losers. Roughly it costs nearly 10*l.* a head to bring a beast out. Although they say they bring them free as regards freight they do not come entirely free. There is insurance and other charges to pay, and it generally comes to 10*l.* before the beast is landed on your farm. We are now asking the Government to establish a quarantine station in England, and allow these animals to be tested under Board of Agriculture supervision in England. That would do away with the second testing and obviate the 30 days' quarantine on this side.

5307. But the point I wish to get at is this. It has been represented to us that animals have been tested in England and have received a certificate although they were really suffering from tuberculosis, and when they were landed and quarantined in this country they have reacted to the tuberculosis test, and the explanation of that was that the animals had in some way or another been subjected to a dope, which for the moment had rendered it impossible for the disease to be detected because the animal would not react to the tuberculosis test, but when the animal had got out to this country and the effects of the dope had worn off it reacted to the tuberculosis test. It has also been stated that the breeders in England and Holland would not agree to a quarantine station at the other side. Can you tell us anything about that?—Well, cattle have certainly come here with certificates and have reacted to the test and have been destroyed. I myself was Chief Veterinary Surgeon for Natal at one time, and our Act required that the animal should be tested here, and in those days we found animals from Australia and England which arrived with certificates reacted to the test and had to be destroyed; but it does not necessarily follow that they were doped, it may be that there was an incubative period during the progress of the test or that they caught the disease in transit here. I understand that is one of the objections which the Government have now to a quarantine station in England. They are not able to say that the animals are free from disease on landing. You may be aware that the American authorities always insist on testing the animals on that side. I have seen cattle tested in the Cape Province and tested in Natal where they have reacted.

5308. So it would be too general an inference to make that there had been collusion or dishonesty?—Yes, it would depend on the lesion entirely. One could form an opinion only after post-mortem.

5309. Then you are of opinion that tuberculosis might have been contracted by the animals in transit between England or Holland and South Africa?—Yes, or there may have been an incubative period during the time they were tested.

5310. So it would be too broad an inference to impute bad faith in every case?—Yes.

5311. But in any case the buyer here has to make a dead loss?—Yes.

5312. **(Mr. Sinclair.)** You, Mr. Woollatt, just now expressed the belief that in a comparatively short time you hoped South Africa would be exporting beef; do you also believe that within a time that is within sight she will also be exporting frozen mutton?—**(Mr. Woollatt.)** No, I think not.

5313. I mean, of course, when you have grown enough to supply your own requirements?—With mutton it is a different thing. The sheep in South Africa appear to have more value for the wool than for the carcase, and while there are such enormous areas suitable for wool, farmers are not disposed to go in for mutton.

5314. Then you think the day is very far off for that?—Chiefly because our class of mutton cannot compete with that grown elsewhere.

5315. **(Sir Rider Haggard.)** With reference to the prospects of Natal's agriculture, I gather that you both think those prospects are good?—**(Mr. Marwick.)** Yes, I do, for those who are capable and willing to work.

5316. And are you referring to the old large system of farming, or to the small system?—Both. The farms are being cut up.

5317. You think in both cases the prospects are good?—Yes.

5318. One of you gentlemen mentioned the matter of droughts; are they not increasing in quantity?—They appear to be increasing and recurring oftener.

5319. You are aware that there is a body of opinion which thinks there is a good deal of drying up going on?—There have appeared in the Press considerable articles about it, and from what I have seen myself, as long as I can remember, I think there is something in it. It appears to be so.

5320. Do not you think that adequate legislation about grass fires and afforestation, and the preventing of old roads changing into sluits might do something to check it?—No I have a theory myself—I do not say it is true—that when we imported the Australian trees to the extent we did, such as the wattle and the blue gum, we brought with them the drought and dry climate.

5321. Well, at any rate, those droughts are sufficiently bad, are they not, to cause you to be a little cautious and to take a not too optimistic view of the future of agriculture?—I expect they have had droughts before and things have righted themselves.

5322. Have you been in the Free State lately?—No, not for some time.

5323. I think if you saw the droughts there it might tend to check your enthusiasm?—Possibly. I know they have been severe.

5324. But otherwise, putting aside the droughts, you are both of opinion that there is a good outlook?—Yes.

5325. We are told, in some parts the farms are stocked up to their full capacity—that they have as much stock as they can carry. What is your opinion?—**(Mr. Woollatt.)** I do not agree. **(Mr. Marwick.)** No. There are portions that have pretty well as much stock as they can carry under the present methods of handling.

5326. You were suggesting that there might soon be seen a beef export from Natal?—**(Mr. Woollatt.)** No, from South Africa.

5327. How do you reconcile that statement, if it be a true statement, and it is no doubt partially true, with the belief that the farms are carrying what they can already, with a possibility of an export in meat?—**(Mr. Marwick.)** A proportion of the farms are carrying what they can, but a large number are carrying no

stock at all. They have been blotted out by East Coast fever.

5328. But tell me, is it a common practice for people here to lay in winter feed?—**(Mr. Woollatt.)** In Natal it is the usual practice.

5329. But in many parts of South Africa no winter feed is grown?—Quite so.

5330. In that case, a farm can only carry stock to its winter limit?—Yes.

5331. Then what you are really looking to when you talk of the prospect of an export trade in meat is a day when farming, taking South Africa as a whole, has very much changed its character?—Then again, we have these big ranching companies starting with this very purpose in areas in which it was not altogether safe to ranch cattle in the past until we had this system of dipping. Their sole object is to raise cattle for these purposes. Rhodesia last year bought thousands of heifers in the Free State for this purpose of ranching, and I understand this winter—because it is not safe to take Free State cattle to Rhodesia in the summer—she will buy thousands of heifers again.

5332. It will involve a different system of farming?—Not necessarily, because when they have these large areas they will kill their cattle at the plentiful season, which is at that time of the year when the cattle are fat.

5333. Even on the old system?—Yes, at certain times of the year, and using the chilling and freezing apparatus.

5334. As a matter of fact, the land could really carry an enormous amount more stock, could it not, if reasonable methods of providing food for winter use were adopted?—Undoubtedly.

Pietermaritzburg, Nel's Rust Farm, Saturday, 28th March 1914.

Senator The Hon. Joseph Baynes, C.M.G., Farmer, called and examined.

(*For the evidence of this witness on "Migration, Land Settlement, and Irrigation," see p.* 44.)

5335. **(Sir Alfred Bateman.)** You are so good as to give us some evidence about your experience in regard to farming in this country. In what order would you like to give it? Have you prepared any statement?—I will just go on with my notes. Well, gentlemen, I am very pleased indeed to welcome you here as representing the Dominions Royal Commission. It is a new departure, I think, as far as the British Empire is concerned, and indeed, I believe, as far as the world is concerned. I have not heard of any similar Commission before, and I am proud to welcome you here to-day. I believe that immense good will result. It is the initiation of a system that will lead to no end of advantage to the Empire, I hope. And I am specially pleased to have you visit this farm, because in the first place, this is the first successful dairy established in South Africa. There are others which have since been established, but I believe their success followed the success of the dairy here. This dairy was started in 1899, just before the war, and, of course, as a result of that, very little progress was made for some years, and to take the year 1902, 5,562 pounds of butter was the largest output in any month.

5336. From this property?—From the butter factory. In December 1909 the record output for any month was 179,595 pounds. That shows the advance that had been made. In January 1910 we opened another dairy in the Orange Free State, at Harrismith. That is on a larger scale than this. It was built after we had got the experience here, and it was built on more up-to-date lines than this one. In 1913, notwithstanding the building of that dairy at Harrismith, notwithstanding the drought, notwithstanding the East Coast fever, and notwithstanding the large additional competition in 1913, the output for the same month at Nel's Rust, Natal, was 110,000 pounds. You see that Harrismith had turned off half the supplies, or more than half, but notwithstanding those disadvantages, the output was 110,000 pounds. That was for the month of December 1913.

5337. You speak of "we"; who are "we"?—I am speaking now of the Nel's Rust Dairy as a branch of the company Joseph Baynes, Limited.

5338. When was that Company formed?—The Company was formed on the 31st March 1911. Up till then the Nel's Rust dairy or butter factory was my own property. It is still my own, in fact, as it is only leased to the Company. In speaking about the dairy, I am referring to the time prior to the formation of the Company, and subsequently. I do so in order to show the great advance of dairying in this country in face of all the obstacles I have enumerated. And that advance, I think, will go on in the future at a much greater ratio than in the past. I believe that, given good seasons from now on, which we have every right to expect, the progress will be even more satisfactory. I suppose that Africa is very much the same to-day as it was in the days of the Pharoahs, when they had the seven years of famine and the seven years of abundance. We cannot have these continuous droughts for ever. I have reason to feel hopeful also because of the improvement that has been, and is being, made in the milking strain of our cattle, for instance, and the large numbers of imported pedigree cattle that are now arriving here as a result of the free freight established by the Union-Castle Company. That will effect a great improvement. The cattle of the country have not been dairying cattle up till recently. Then, again, the method of farming has improved very greatly, as you will see from the buildings that are in the country now, as compared with those that were here only a few years ago. Also, because of the eradication of the tick, it is quite possible for dairy farming to be established on a large scale on our coast lands, and that I regard as a very important matter indeed, for the reason that the conditions on the coast are to my mind very suitable for dairying. The conditions of feeding are also better there than on the uplands here. There farmers can grow sugar-cane to feed the cattle with, which I know is a very valuable food for cattle—at all events for dry cattle—that is cattle not being milked. For trek oxen, or cattle not being milked you do not want anything better than sugar-cane. Then, one of the best foods, and it can be grown without limit on the coast, is the sweet potato. Further there is no need to house the cattle in winter, because there is no cold to speak of, and also there is no need to worry about the heat in summer, because there is any amount of tree shade. Where there are coarse grasses unsuitable for cattle, the farmer can plough those up, and put in paspalum or other grasses which will make the coast lands as valuable as any land can possibly be for dairy farming. So that altogether I feel quite sure that the success of dairy farming will be very great on the coast.

5339. I think you are going to tell us something about the position of your company—whether it is co-operative or not, how much land you draw your supplies from, and so on?—This dairy (Nel's Rust) is at present drawing supplies from Zululand, from Matatiele—at the extreme end of East Griqualand—and numerous other places. Some people in the Free State continue to send here notwithstanding the dairies in the Free State. We are drawing supplies from all over Natal, from the North Coast and the South Coast, and even in some cases from the Transvaal.

5340. How many miles?—Hundreds of miles in each direction.

5341. **(Mr. Bowring.)** How is it forwarded—by rail or road?—The supplier sends his cream to the nearest railway station, and from the nearest railway station the Company pays railage to the dairy.

5342. **(Mr. Tatlow.)** Is it the milk he sends or the cream?—It is the cream. Each farmer has his own separating plant.

5343. **(Sir Alfred Bateman.)** Perhaps you have all these particulars in some report or memorandum which you could let us have—how much you pay a gallon for cream,* and what the contract is, and so on. If so, you might send the statement to the Commission. Also whether the Company is co-operative, and whether the suppliers of the cream share in the profits. All that information we should like to have?—I will give you a memorandum.†

5344. **(Mr. Sinclair.)** The constitution of the Company would, I suppose, supply all those particulars.

5345. **(Sir Alfred Bateman.)** Yes, and the balance sheet, the last report, and the profit and loss account?—The head office of the Company is at Pietermaritzburg, and we can supply the information desired. Joseph Baynes, Limited, was not formed as a co-operative Company, although the policy of the Company is practically on that basis, and it is my intention next month, when I shall be Managing Director, to conduct it more on those lines. But it was not established under the title of a co-operative concern at all, although it has been working as much on the co-operative principle as any co-operative business anywhere in the country, and it will continue to do that. That is its purpose.

5346. Then to come to the next point, I think you are interested in closer settlement?—Yes, I believe that with dairies and piggeries, the coast lands will be admirably adapted for closer settlement. The possibilities of the food supply there are very great indeed. I have spoken about drought and East Coast fever, and you can understand how cattle were practically wiped out, and how it affected farming. Now, there is one difficulty that we will have to contend with, and I should like to speak of it, as I think it will do serious harm in the future—that is the tendency to build innumerable butter factories in the districts already served. You will, of course, understand that when you multiply the factories, you multiply the costs of manufacture. And the cost of manufacture you cannot reduce. You must, in order to succeed, deal with the business properly. You must have an efficient and expert staff, and unless you have such a staff you are bound to make inferior butter. With an inefficient staff and inefficient buildings you cannot deal with the industry on a proper footing. You must have adequate cold storage, and even then these small factories will have all they can do to make good quality butter.

5347. You will give us particulars of your staff, the labour you employ, how much is white, how much coloured, and what wages are paid?—I will prepare these for you.‡ Another question has cropped up lately in connection with this dairy movement. The Government has been supporting dairies all along. I mean with money. But there is only one dairy, so far as I know, receiving support from the Government, that has been successful. I refer to the Tweespruit Dairy in the Free State. That was started under the auspices of Sir Hamilton Goold-Adams.

5348. He was Governor seven years ago at Bloemfontein, when I was here?—Yes. I think that is the only dairy started in that way that the Government has not wasted money on. But before it was firmly established, and its success assured, the Government handed it over to the farmers at a peppercorn rent of 1*s.* a year. I think something of that sort.

5349. **(Mr. Bowring.)** What did it cost the Government?—Several thousands of pounds, I suppose. They are still adopting this principle of advancing money to so called co-operative concerns. These co-operative dairies, and the multiplication of dairies in the country where it is impossible to get any great quantity of cream, must do a very great deal to increase the cost of manufacture of the butter. A dairy with a small supply of cream has to get its work done efficiently and successfully the same as a big establishment, and it has to provide an adequate staff, and well trained people, and I do not believe that you can afford to have that well-trained staff where the production is only comparatively small.

5350. **(Sir Alfred Bateman.)** The fixed charges are so large?—Yes. I believe that the Government is making a mistake by going on these lines. Then, again, that raises the question of the danger of producing inferior butter, because these small dairies cannot afford to pay the necessary staffs, and the result will probably be the production of an inferior article, which may have to go across the water to find a market, doing infinite harm to the industry which it is sought to establish.

5351. Yours is a superior article?—We claim to make at all events the best quality of butter here. I would like to give you an illustration. Last winter, because of the drought and one thing and another, we thought it was advisable to import. But so long as we were putting out butter ourselves, our customers would not take the imported article, although we imported the very best New Zealand article.

5352. What price do you get for your butter, winter and summer?—At the present time we are getting 1*s.* 5*d.*, 1*s.* 4*d.*, and 1*s.* 3*d.* per lb. We make three different qualities—the Fern Leaf, the Ivy Leaf, and the Oak Leaf.

5353 Where? At the factory?—In Durban, Johannesburg, and Maritzburg.

5354. All delivered there?—Yes, delivered at those centres.

5355. You pay carriage, I suppose?—Yes. That is the wholesale price, of course. Threepence or fourpence goes on to the retail price.

5356. Do they get New Zealand butter?—A good deal is imported by various people. We have a business in Johannesburg also. When you are there I shall be glad if you will call and see the dairies and tea rooms. The dairy is at Braamfontein, and I think you will see that we have there the most modern appliances in that line. In connection with the mischief of too many dairies, I will put in some papers* that will deal with that, prepared by the Chief Government Dairy Expert—Mr. Challis. He was formerly Government Dairy Instructor for Natal.

5357. He condemns the small dairy?—Yes; he condemns too many dairies, very strongly. But the system is still going on, because the question was raised in the House the other day about the contribution by the Government to a so-called co-operative dairy in the Transvaal, near our own dairy, and one in the Free State not far from one of our own dairies there.

5358. I see that Mr. Jagger drew attention to it, but his motion was lost?—Yes, but, of course, all these motions are lost. The reason is obvious. The bulk of the members do not know the true conditions, and

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* *The witness subsequently furnished the following particulars:—*

Milk.—To farmers in Natal, 9*d.* per gallon all the year round; to farmers in Transvaal, 10*d.* to 1*s.* 2*d.* per gallon according to season.

For butterfat in cream, supplied to the Nel's Rust Dairies, in all Provinces:—

For superfine cream -	- 1*s.* 2*d.* per lb. butterfat.
For 1st grade cream -	- 1*s.* 1*d.* per lb. butterfat.
For 2nd grade cream	- 1*s.* per lb. butterfat.

(The Company pay railage.)

Where *cartage* is arranged by the Company, the usual charge is ½*d.* per lb. net for distances up to 30 miles, and 1*d.* per lb. of cream over 30 miles, which is paid by the farmer, or deducted from his cream account.

† Not reprinted.

‡ *The witness subsequently furnished the following information:—*

Labour employed by Joseph Baynes Ltd.—Europeans 190 (approx.) Coloured, 350 (approx.).

Wages paid.—The wages of the European Staff vary from 10*l.* to 30*l.* per month (male) and 6*l.* to 12*l.* for waitresses and Manageresses. Managers of some factories are paid more than 30*l.* per month. The coloured staff (natives and Indians) receive wages ranging from 2*l.* to 4*l.* per month, with free rations, quarters, or houses.

* Not reprinted.

many of them are interested in co-operative dairies, no doubt, or have received assistance in the past. Now the prices for butter-fat here are, I believe, higher than in any other part of the world. The prices to-day (or they will be from the first of next month) are 1*s*., 1*s*. 1*d*., and 1*s*. 2*d*. for the different grades per lb. of butter-fat. As the winter advances they will go higher. As I mentioned just now, we make three grades of butter here—the Fern Leaf, the Ivy Leaf, and the Oak Leaf.

5359. Those are your trade marks?—Yes. I do not think I have anything more to say about dairying. I will now go on to the bacon factory. In connection with dairying it was considered that it was desirable to establish a bacon factory, because the two should go together. Where the farmer separates his milk and sends the cream to the factory, there is nothing better he can do with his milk than to feed pigs. Now if you are going to have a large pig industry in the country you want a bacon factory to deal with it, and therefore we established such a factory here. I believe that bacon-curing in this country will be eminently successful in course of time. It has had its drawbacks, one way and another. Just as farmers were beginning to breed a proper class of pig to send to the bacon factory, within proper weights, the drought came, and mealies went up to 1*l*. per muid of 200 lbs., and the farmers got alarmed about it and sold their pigs as hard as they could, and now the bacon factory is there and can deal with 1,000 pigs a month, but it is barely getting 400.

5360. Is that on the same basis as your dairy?—Yes; it belongs to the Company—Joseph Baynes, Limited.

5361. We shall doubtless have an account of the bacon factory in the report?—Yes, in the memorandum.*

5362. I gather that it has not been entirely successful?—Well, like all new industries, it has had all kinds of difficulties to meet with at the beginning, but it has met those difficulties successfully, and now, although the output is quite small, it still pays its way, and leaves a margin of profit. But the difficulties in starting an industry like that are very great. You have to educate the farmer first of all to the class of pig you require if he has not been in the habit of breeding any particular pig. Because to make good bacon you must have the right pig.

5363. What is your pig?—I have here the Berkshire and the large black. I cross the large black sow with the Berkshire boar. We have very little protection for the bacon industry in the way of Customs duties on the imports of bacon and so on. But I think the farmers will very shortly learn that it will be more profitable to them to put their mealies into bacon rather than export them, and they will come into it before very long. As I say, I do not think there is any country in the world more adapted for bacon-curing than this. Closer settlement, again, would help the pig industry very considerably.

5364. Now, about the eradication of tick diseases by dipping?—I started dipping in January 1902 from information I received from North Queensland.

5365. (**Sir Rider Haggard.**) Were you the first to start dipping?—Yes, cattle dipping. I was the first in South Africa—the first in Africa, I think, as far as that is concerned. I realised that to farm under the conditions I have already mentioned with the tick to contend with was impossible in dairying or stock raising or any other way. Nobody ever dreamt of farming cattle on the coast, because of the tick. I never dreamt of eradicating the tick at that time, because it seemed impossible to eradicate them from the veldt. If one could moderately reduce the number of ticks, until they had no effect on the cattle, that, to my mind, was all that could be hoped, and that was all I was looking forward to. The East Coast fever came along then. That was the most serious disease carried by the tick, but not by the tick that carried red-water—the very reason why dipping was put down in Queensland—but by a flat brown tick. The tick that carries red-water is distinguished from the other by its colour. It is a large blue tick, and that did not carry the disease itself, but it carried it through the egg—that is, the next generation. I am speaking of red-water now. It was from the egg of the tick that got on to the diseased animal. But East Coast fever was carried in a different manner altogether and by a different tick. The blue tick only gets on the animal once, and remains on until it is engorged and drops off to lay its eggs. Therefore, it could only carry it through the egg. But East Coast fever is carried by the tick that gets on the diseased animal. It is only on a few hours or days, at the most, drops off, casts its skin, gets on an animal again, and if it gets on a diseased beast the first time, the second time it gets on it carries the disease. Well, with this tick getting on one animal and then falling off and getting on another, three times in succession at least, it was difficult to "nobble" him. You might dip and dip and dip, and yet not nobble the tick, because he was possibly on the ground at the time. That resulted in the Natal Government asking Mr. Watkins Pitchford, who was the bacteriologist at the time, to try and invent a dip that could be used, and he evolved a dip that you would use every three days without injuring the animal, and so by the frequent dipping we were able to nobble the brown tick.

5366. When was that?—I put in for you a paper giving the whole history of this dipping business.* It was in consequence of the East Coast fever, therefore, that we had to find means of destroying the ticks more frequently than by the use of the Queensland dip. On account of its strength and composition, to start with, you could not use the dip more frequently than once a week, and weekly dippings would not suffice to get at the brown tick. I was using a dressing on the cattle, in between the weekly dippings, and I clipped the hair from their tails and from the sheath, so as to get the dip to every part affected.

5367. What was the result? Did you get rid of the tick?—Well, the result is that you may examine my cattle as close as you like, and you will not find a single tick, whereas before the ticks were as dense as possible on the animals.

5368. Have they now all been absorbed?—They must have been taken up, or they would get on the cattle.

5369. Have not the cattle collected most of the ticks off the veldt now and have they not been destroyed in the dipping?—Yes. That is the case. The cattle collect the ticks, and by the dipping and by one means and another we kill the ticks, and so there are none left to carry on the propagation of the tick. In this connection, I will give you another illustration of the way in which we have been able to fight these plagues that have been such a bane to the country in times past, and that is in regard to the locust plague. Means have now been found to eliminate that pest. Natal is in the proud position of having discovered a means by which the locust plague should not occur again. It is so simple, and I want to emphasise this point, because we do not realise the benefit to humanity of the discovery made by Anthony Wilkinson of Ottawa. We were troubled with flights of locusts that destroyed the vegetation, that left orange trees with the oranges hanging on the branches and not a single leaf, that left the ground by the side of the rivers absolutely bare of grass. They were all over the country and destroyed pretty nearly all the vegetation that existed. The sugar planters were getting very concerned about these invasions. Well, Anthony Wilkinson got the arsenical spray, and he first cut and sprayed some sugar cane tops with this arsenical preparation, for the voetgangers, as the hopping locusts are called, to eat. They seemed to appreciate a little treacle along with the arsenic. He spread these cane tops about, and the locusts ate and died in millions. Later on, we got the knapsack spray. We mixed water, and sugar or treacle, and arsenic or arsenate of soda. We did not use arsenate of soda at first, only arsenic and soda separately, and

* Not reprinted.

these with sugar or treacle and water were all combined together, and if a man went with this knapsack spray and pump on his shoulder, pumping with one hand and spraying with the other when the locusts were clustered together, he could destroy them in millions. When the locusts come out of their eggs, they collect in closely packed clumps : well, with this spray pump the liquid is sprayed over these clumps, and the locusts are destroyed in the simplest manner possible. And now if the authorities will only take steps in time, and find where the locusts are depositing their eggs, and be ready by the time the young locusts emerge, they can with very little expense and trouble destroy every swarm. That can be done all over the country, so that the locust invasion should now be a thing of the past. Wilkinson has conferred a great benefit on his country by his simple discovery. Then also, the dipping I referred to just now, which eradicated East Coast fever, has also been instrumental in eradicating other cattle diseases. As with dipping for the East Coast fever—so with the dipping of horses in regard to horse sickness. Those responsible to the Government for these matters, for some reason or other, are not entirely in sympathy with this matter of dipping. For instance, the Government went on slaughtering cattle long after it was demonstrated that it was possible to combat the disease by dipping.

5370. **(Sir Alfred Bateman.)** The Union Government?—Yes. They went on slaughtering to such an extent among the natives that if they had slaughtered many more cattle there would have been a native rebellion in the Transkei Territories. That is what led the Government to stop the slaughter. I firmly believe that the frequent dipping of horses will equally prevent horse sickness, as it has done East Coast fever.

5371. Has it been tried?—Yes, up and down the country. I believe that it will stop horse sickness, for the simple reason that it will to a very great extent prevent the mosquito, which carries horse sickness, from biting the animal, and, if it does bite I believe that the arsenical impregnation of the skin will kill the venom of the mosquito. That is my opinion. But I do know that continuous dipping has eliminated very many diseases from my own live-stock, and I firmly believe that it will eliminate horse sickness if properly used.

5372. Is there anything else?—Then, as regards General Gorgas's work in the eradication of the malarial mosquito on the Panama Canal, I believe that will be of immense benefit to this country, too. That work will extend to this country and into the tropical regions of Africa and elsewhere, and the benefit to be derived therefrom is incalculable. We have now control of the tick, we have control of the locust, and I believe we will eliminate malaria and other diseases from all our tropical and sub-tropical regions. And the effect of these measures will be something marvellous.

5373. **(Sir Rider Haggard.)** What is the name of this dairy company?—"Joseph Baynes, Limited."

5374. What is the capital?—175,000*l.*

5375. What dividends do you pay?—We have paid two dividends. The first dividend was for eighteen months, and that was 8 per cent., and the second dividend was 5½ per cent. for the twelve months.

5376. Do all the shares belong to you?—They are held by myself and others.

5377. You say it is run on co-operative lines?—Yes.

5378. Do you follow the rules of the Danish co-operative dairies?—It is my intention. We pay the highest prices up to now of any dairy company in South Africa, but by one reason and another we have been unable to pay any larger dividends or bonuses, especially owing to the drought lately. We have only been running three years as a company. Previous to that it was purely my own property.

5379. Do you intend to turn it into an actual co-operative company, or merely to follow the usual co-operative rules?—It is the wish of the directors to work on the best co-operative principles, so far as securing the greatest possible benefit to the farmer is concerned; and, when such is possible, in addition to paying good prices for butterfat, we intend to pay a bonus to the suppliers. (*See* last Report of Directors.)

5380. **(Sir Alfred Bateman.)** You are the Company?—No. It is managed by a board of directors, but I hold the controlling interest.

5381. **(Sir Rider Haggard.)** You mean to run it on co-operative lines, but not to turn it into a co-operative company?—That is my purpose.

5382. And you object, you say, to the establishment of a number of co-operative companies all over South Africa?—Yes, all over the country, I do.

5383. And the reasons you have given—you need not repeat them—but I would ask—does not the question of distance enter into the matter—the sending of the cream so many hundreds of miles, which you must do, unless there are factories at hand?—We make three grades, and, given proper treatment, from the longest distance we can make the first grade butter.

5384. But there is the question of carriage?—Yes.

5385. The carriage must come heavy if you send from the other side of the Free State here?—The railage is paid by the Company—and not by the supplier.

5386. But somebody has to pay it, whether the Company or the supplier ; it must increase the cost?—It does not make much difference

5387. Well, Denmark is the premier country in the world in reference to co-operative dairy matters, and there they have factories every few miles?—They have a very big and dense population there too.

5388. The carriage is very cheap on the Danish railways, but nevertheless they do find it desirable not to draw supplies from too large an area. You think that does not apply here?—I do not think it applies in Denmark either.

5389. Well, those people are very hard-headed, and know their business pretty well. But at any rate, you think that their plan would not suit here?—I do believe that you can make as good butter from one dairy in Denmark as from a number of dairies up and down the country. I have been in Denmark, and I know. And I have had Danish dairymen here also.

5390. Now I want to put one general question. With all these boons as the result of dipping and so on, what do you consider the general prospects of farming in Natal?—I have already expressed my opinion, that there is no part of the world that I would rather farm in than this.

5391. I thought you said that because of its agreeableness, but what are the prospects from a remunerative point of view?—Well, I do not think there is any part of the world where farmers are better off than they are here.

5392. Then you have a high opinion of the future of South African farming in general and Natal farming in particular?—There is, of course, the question of the native and the European. At every election there is a cry to do something to make this a white man's country. Well, to do that you would have to exterminate the native, and that, I would hope, will never be done.

5393. Do you consider that South African farming in general and Natal farming in particular offers good prospects as an investment from a business point of view?—Yes, I think so. I do not think there are any people better off than the Natal farmer.

5394. Then you consider that they can not only make a good living, but possibly lay something aside? I know many who have done so who started with nothing and are very prosperous men to-day.

5395. Do you consider that the price of land to-day is fair and just, or do you consider it inflated?—A man should have no difficulty in making a good return on the land at the price it is to-day.

5396. In other words, you think it is inflated?—I think the price of land is perhaps quite as high as there is any warrant for.

5397. If not higher?—Well, some will think that it is higher.

5398. **(Mr. Sinclair.)** Your dairy company, I understand, was the pioneer company in Natal, was it not?—This was the first successful dairy, but not the first

dairy company. Our company was only formed in 1911.

5399. There are other companies carrying on business in the locality, are there not?—Yes.

5400. Has the general effect of the system been to bring about an improvement of the dairy cattle and a larger production than before?—Yes.

5401. That has been the general effect of the whole system?—Yes, undoubtedly.

5402. What is the value of land that can be profitably employed for dairy purposes?—I am afraid I cannot say.

5403. Can you not give us the average?—I am afraid I cannot. Those are matters that I have not gone into very much because they have never affected me. I have a large area here and the price was very moderate when I secured that area.

5404. You said just now in answer to Sir Rider Haggard that you thought the value of land here, and you are speaking of dairy land, I take it, is inflated. I want to get from you an idea of the capital value of the land that could be profitably utilised for dairy purposes?—It would depend on its locality. I believe that land on the coast would be more valuable than land in Natal at a higher elevation, because I believe on the coast you can grow food most advantageously for cattle.

5405. I have in my mind the value of land that can be profitably utilised for dairying purposes in New Zealand, and I wanted, if possible, to see what the value of your land was so as to make a comparison. Can you make land worth 15*l*. an acre pay?—I cannot speak from practical experience, but on the coast I believe they can. You can grow sugar-cane there for feeding the cattle and you can grow up to a maximum of 80 tons per acre per annum. That will give you an idea.

5406. Do you think that land worth 30*l*. per acre could here be profitably employed for dairy purposes?—Well, I would rather buy cheaper land myself.

5407. You referred just now to a country that can make dairying pay and can send its butter to England with its land at a higher price than the figures I have mentioned?—Well, I believe on the coast you can get land that will equal anything that you can get in New Zealand for dairying purposes. You may have to cultivate the grass the same as in New Zealand, and you can grow sugar-cane and sweet potatoes in a way that you cannot in New Zealand.

5408. In this country you have cheaper land and cheaper labour?—If it is possible in New Zealand to carry on dairy farming on land costing 30*l*. or more an acre, I think it would be equally possible here—that is on our coast lands.

5409. Then you ought to have a great industry with your natural advantages here?—Yes, I believe we shall, that is my opinion.

5410. Now you spoke about having too many factories, and you do not approve of that. You favour, I believe, small settlement?—On the coast I think small settlement could be very favourably placed.

5411. If you have small settlements must you not have dairy factories within reach?—That is not my experience.

5412. Take the case of the small settler who is not on the railway line. How is he to get his milk to the factory?—There would be stations all along the line, and he can send his cream to the station by road.

5413. I have in my mind a system of small farmers who co-operate in sending their cream or milk to the factory. Suppose a man has a small place with a few cows and only a little milk, it will not pay him to carry his milk a long distance, but if there is co-operation between a dozen farmers can they not do the business more economically. Is there nothing of that kind going on here?—My Company provides transport in some cases at long distances from the railway.

5414. **(Mr. Garnett.)** Can you give any particulars as to the kind of cattle which you find the most useful?—On my estate I confine myself, practically speaking, to only two breeds, the Shorthorn (Lincoln Red) and the Friesland. Ayrshires and Devons also do well, and are much favoured by farmers throughout South Africa.

5414A. Do you milk by machinery?—I do not favour milking by machinery in any circumstances.

5414B. What is the percentage of butterfat produced?—Taking the supply of butter-fat to the dairy at Nel's Rust, the average of low tests may be placed at 35 to 40 per cent. (butter-fat in cream), and the high tests at 50 to 55 per cent. Cream is sometimes received with butter-fat percentage as low as 30, and as high as 63 per cent.

5415. I should like to ask you what is the extreme distance from which you can get cream forwarded to you?—I get cream now from the extreme parts of Zululand, about 170 miles, and from Matatiele on the other side, up to 200 miles, say.

5416. What is your rate of carriage for that?—I cannot give you that off-hand, but I will put in a statement.

5417. **(Mr. Tatlow.)** Would you, when doing that, give also the rates from various stations, for distances of, say, 25, 50, 75, 100, and 150 miles?—Yes.

5418. **(Mr. Garnett.)** I wanted to see what was the extreme rate for the longest distance and the shortest, and so on?—I will give the rates up to 200 miles.*

5419. Is that your limit—200 miles?—No, in isolated cases we get cream from longer distances.

5420. Well, I would like to have the extreme distances?—The longest distance is from Greylingstad to Nel's Rust—349 miles.

5421. **(Mr. Bowring.)** In moving the cream these long distances what methods are taken to keep it sound and sweet?—If the cream is taken from the farm to the station in the best possible manner, that is, protected from the heat by wet canvas put round the can to keep it cool, then it can travel long distances and arrive at the dairy in good condition for first-class butter. The cream needs to be kept some time to ripen before it is churned.

5422. Even if it is days on the road?—Yes, if it starts perfectly sweet. If it leaves the farm directly after it has been separated and cooled and is brought to the station in good condition it will arrive at the factory in good condition.

5423. There is no necessity to sterilise the cream or anything of that kind, is there?—You can bring it long distances without sterilising if it arrives at the station in good condition, but when the cream has to travel very long distances, as it does in Griqualand East, by road and by rail, the damage is done very often before it gets to the railway.

5424. **(Mr. Tatlow.)** Is the cream carried in cans?—Yes.

5425. By goods train or passenger?—Mostly by passenger.

5426. Do they charge any more by passenger than by goods train?—The charge is the same.

5427. Do they carry the empty cans back free?—Yes.

5428. **(Mr. Garnett.)** What is the extreme distance that the cream is brought. What is the extreme distance that you collect it from the railway? How far has it to be driven to the railway?—The less the better. I will furnish information in my memorandum.

* *The witness subsequently furnished the following statement:—*

Railway Rates on Cream.

1—25	Miles	½*d*. per gallon of cream.
26—50	„	1*d*. „ „
51—75	„	1¼*d*. „ „
76—100	„	1½*d*. „ „
101—200	„	2*d*. „ „
201—250	„	2½*d*. „ „
251—300	„	3*d*. „ „
301—400	„	3½*d*. „ „
401—450	„	4*d*. „ „
451—500	„	4½*d*. „ „
501—550	„	5*d*. „ „
551—600	„	5½*d*. „ „

(Minimum of 3*d*. per consignment.)

5429. But how far from the railway does it pay to collect it?—In Griqualand East we are carrying cream long distances and there is no doubt deterioration takes place on the road.

5430. Can you say what is the limit that the cream can be brought by road?—It depends so much on the mode of transit, whether the conveyance is run by oxen, by horses, by mules, or by motor.

5431. I want to get the extreme distance which the cream is brought by road before it is put on rail?—Well, about 50 miles.

5432. And what is the length of the railway journey on top of that?—About 150 miles.

5433. Could you say how far it has to be driven to your 200 mile limit or over? What road journey does it have in addition to the 200 miles?—There is no long road journey, the farms being situated near the railway line.

5434. **(Sir Rider Haggard.)** I understand that dipping is compulsory by law, is it not?—I am afraid the law is not carried out even where it is compulsory. There is a compulsory Act for certain districts which are declared under the Act, the Act being permissive.

5435. Well, what is the state of the law as regards dipping?—I am afraid, if there is a law in existence supposed to enforce dipping, that that law is not carried out.

5436. Is there such a law?—We had laws in Natal before Union in which was a provision whereby a district could accept the law or not. It was optional.

5437. **(Sir Alfred Bateman.)** Do you mean province or district?—I mean the magisterial division. I think under the Act the Government can proclaim certain areas as infected and under the regulations they can compel dipping within those areas, but if there is no necessity to do it there is now no compulsory dipping.

5438. If the Government decides to declare an area infected, it is compulsory then?—Only as already stated.

5439. **(Mr. Garnett.)** I should like to ask whether there are any regulations prescribing dipping, say, in the Transkei and these other districts occupied by natives, which must, one would think, be infested with ticks and therefore be breeding grounds for the diffusion of the tick. Could you say if that is so?—The Government is controlled mostly by farmers and the farmers, many of them, are absolutely averse to anything of this kind; they are averse to the least compulsion, and the Government dare not to-day bring in a general compulsory Dipping Act over the Union.

5440. **(Sir Alfred Bateman.)** Well, you have given us very valuable information, and it is a pity that we have not more time to go further into these matters?—Thank you. I hope the information which I have given will be of assistance.

(The Commission then inspected the dairies.)

TRANSVAAL.

Pretoria, Monday, 30th March 1914.

Mr. Edmund Francis Bourke, President of the Pretoria Chamber of Commerce, called and examined.

(For the evidence of this witness on "Fruit," see p. 319; *and on "Mining," see p. 33 of* [*Cd.* 7707].)

5441. **(Chairman.)** Would you kindly give your evidence?—Yes. As regards the agricultural development of the Pretoria district, we wish to draw attention to the geographical position of Pretoria. It is on the railway at the converging point of the lines from the east, north, south, and Rustenburg districts. The agricultural and mineral development of those areas will flow through Pretoria, the bulk of it, and flowing through, its nearest way out is through Delagoa Bay. Then we also wish to point out that during the last three years we have suffered from drought in this part of the country. Before that time the export of maize had just commenced and had already reached large figures. In the following years, owing to the drought, the production of maize fell off, so much so that mealies which had been shipped to Europe had to be repurchased and brought back to this country again to supply the wants of the country owing to the shortfall on account of the drought. The area under cultivation in this district has enormously increased of late years, however, and given favourable years the output of maize alone from the Pretoria district, the Waterberg and Zoutpansberg districts, all of which, in addition to the Rustenberg district, will flow through this centre, that quantity will be very large. The quality of the grain produced about here is probably second to none in South Africa, and the London market pronounces it to be some of the best that reaches that market. We would also like to draw attention to the fact that the production of tobacco already in the Rustenburg district has reached such proportions that they can no longer consume it locally, and enormous quantities are stored. We are now waiting for some method of preparation which will enable the market to be further extended, and there is no doubt that tobacco-growing will be greatly changed before long, as regards the methods of culture. They will have to be changed in order to capture the European markets, but we have every indication that we are on the right lines, and it will not be long before we are able to produce the required article. Then the tobacco in the northern districts of the Zoutpansberg amounted in 1911 to 5,166 lbs. and the population of natives in that district was 132,215, men only 89,215; of those seeking passes on the Witwatersrand, men were only 26,608 in 1912. We should like to point out also that already the Government has recognised the necessity of giving support in order to encourage the exportation of our maize by giving a flat rate on all maize exported to the London market. We want that same principle applied to shipments of ores that will enable the districts in which we are concerned to develop more rapidly.

5442. **(Mr. Campbell.)** The whole of the Transvaal practically is a good country in which to grow maize, is it not?—On the high veldt they are hampered at times by early frosts. If they get early rains on the high veldt it is also a big producing area, but we in this district are more favoured, because our frosts come later, and our maize is of a higher quality owing to the amount of sunshine and warmth that it gets during the ripening period.

5443. Is it not in this district that there exists one of the largest maize farms in the world?—There are some large growers. There is one farm belonging to the Transvaal Land Development Company. They have only had the land under cultivation for two years, I think. The first year it was broken up, and last year they put in the seed, but owing to the drought the crop that came was very small. But that land is broken and ready for cultivation, and during the present season I am sure there will be a very big output from those estates. In addition to that there is an area known as the Springbok Flats, which at one time was looked upon as almost a desert, but to-day it is being very largely developed. Its future depends on the amount of water they can find. In some instances water has been found by means of boreholes at a com-

paratively easy depth, in others, again, the water is the condition which means occupation or non-occupation. But that country is also a good pastoral country, and it is being developed as such at the present time. I think that, apart from development along these lines, it will be probably something like double or treble what it was last year. I mean, in addition to the large amount of land under cultivation by white farmers in the Transvaal there is a large amount cultivated by natives.

5444. Can you give me any explanation of this fact, which has been my chief difficulty, and I fancy also the difficulty of most of your visitors, that in a country which, I suppose, is as eminently adapted for the growth of maize as any country in the world, you are one of the greatest importers of bacon and bacon products, and dairy produce? Can you tell me how it is that pig-raising is not connected with maize-growing as it is in other countries, and that dairying is not carried on more where an artificial fodder like maize can be grown so well?—Well, for one thing, we have still to get the full benefit of railway communication, and in this way be able to reach the market easily. Take the milk produce. The milk season is, of course, during the summer months, when the heat is very great. It is largely a question of facilities for handling the milk—co-operative dairying—and it will come in time. There have been attempts made already, but they were rather hastily conceived and not well carried out. But the time is coming when that reproach will disappear. In regard to pigs, it is not so easy to reply. We have had three years of drought, and during those three years it has been difficult to get fresh produce to feed the labourers and stock on the farms, which are of first importance. The pig industry also flourishes better in areas where there is swampy ground, and that we have not got. I think they do better also in colder areas, and the northern districts of this country are too warm. It is favourable for maize cultivation, but not so favourable for the pig. It does fairly well, but it is not too profitable.

5445. But the pig business is developing?—It is capable of development, but I do not think it will ever do so well here on account of the heat and the lack of stretches of low-lying marshy land.

5446. But in climates warmer than this, is it not a fact that the pig does very well?—It may be, but we have not yet come to our own in that respect.

5447. Do you not think as an economic solution of your difficulties that it would be far better as a policy to encourage dairying and pig-raising, which are fairly high-priced products, rather than to encourage the export of maize, which seems to be the policy of the Government? Maize is a bulky article and difficult to transport and has rather an uncertain market abroad, whereas the other products, which in other maize-growing countries are dependent on maize, are valuable and have a certain market?—Well, in normal times we have a big output of maize. We have not hitherto been able to do very well with our pigs, and our dairying industry needs improvement, but I may say that we are moving along those lines now. We have in this area a fair number of good shorthorn cattle, which as time goes on will mean a greatly improved output, and the question of winter feeding is receiving attention. Ensilage pits are being established and the cattle are being fed better in the dry season. The farming methods here have been rather primitive in the past, but we are improving.

5448. But that hardly answers my question. There is a very strong tendency, as a matter of Government action in this country, to encourage the export of maize. Special rates on the railways are granted, special loading facilities provided, and encouragement given in other directions to export this maize from the country where it seems to be so badly needed in the directions I have mentioned, and there does not seem to be the same strong tendency to encourage these other industries which are dependent on maize production very largely, and for which products South Africa is at present dependent on outside markets. Do not you think that the policy should be rather in the direction of encouraging these other industries?—We are dependent entirely on the inhabitants of the country. When they see the policy of doing what you suggest and it is brought home to them effectually, it will follow, but to-day they take what we have, and maize being the product that is in general cultivation the idea of creating a market for that product was the first consideration, but I would say also that the other matters are not being lost sight of. There must be education on the part of our farmers, and that is gradually taking place. But in this country the farmers do not go so much for theoretical education as they do for practical example, and one farmer successfully raising pigs and making butter satisfactorily will set a whole district going on the same lines. That has been done, and is being done to-day.

5449. (**Sir Rider Haggard.**) Drought is a very important factor in all this farming, is it not?—Yes.

5450. During the last three years has it been possible to make grain farming pay on the high veldt?—Yes, in places, but in the back veldt we have done very badly.

5451. Wherever dry farming is possible, has it been possible to make it pay in these years of drought?—I do not think so.

5452. Therefore, in considering this agricultural question you have to bear in mind the possibility of these severe droughts, have you not?—Yes.

5453. Then does it not follow that farming can only be a certainty here where you have the possibility of irrigation. I am speaking now from practical experience?—I think the future of South African farming is in the direction of mixed farming—that is to say, by producing crops to feed your cattle, and by having the cattle as a standby during the time your crops fail or partially fail. They do not altogether fail. We have had instances where a man has had no crops at all, but usually he has enough to feed his stock.

5454. But that is not my question; can farming be looked on as a remunerative certainty except in those districts where there are possibilities of irrigation?—Well, I believe it can be made to pay even with the bad seasons, because when the seasons are normal the results will be sufficient to tide the farmer over the bad time. Two or three good years will mean that it will pay.

5455. You mean that you would not mind investing capital in the face of drought?—We have done it.

5456. And you think it is still payable?—Yes.

5457. What is the average value of agricultural land round here now?—It varies very much. It is exceedingly difficult to say. Take the Springbok Flats, for instance, where the soil is more valuable than in any other country. It is very patchy. There are large areas of very good black soil, approximating to Indian cotton soil, and next to it a chocolate soil, and then again a light red soil which needs fertiliser; they are all good in their way, but differ in value. The value of land, I should say, taking it all round, would be perhaps from 15*s.* to 20*s.* an acre, and for picked spots a little more.

5458. Within a radius of, say, 50 miles of Pretoria?—Yes, I should say so.

5459. Has it risen very much in the late years?—Yes, where development has taken place there has been a considerable advance.

5460. Is dry farming really practicable in the face of severe droughts?—I think so, but not to a man with a small farm of, say, 160 acres like it is in Canada. A man would require, I should say, at least 1,200 acres to have a fair chance of coming out.

5461. That means large capital?—No, I do not know that it does.

5462. To put 1,200 acres under the plough?—No, you would not put 1,200 acres of land under the plough. On a farm of 1,200 acres I should think he would put 200 or 250 acres a year under the plough.

5463. Then you look with confidence on the future of local agriculture?—I do.

5464. You think it is going to be a prosperous business?—Yes, but it is going to take time to develop

5465. And you believe that the reproach to which Mr. Campbell has alluded, namely the importation of all these foodstuffs, will be done away with?—I am

sure of it. The price of butter, for instance, has fallen tremendously from what it was two or three years ago.

5466. But you will remember that during the last forty years it has not been done away with : the conditions are much the same as regards importations as they were forty years ago ?—Yes, but the population has increased very much. I should like to say this also : there are certain facts worth remembering. For instance, in 1870 or thereabouts large quantities of butter were sent down from Wakkerstroom, Heidelberg, and Utrecht districts and sold in Natal, and even shipped to Mauritius and Cape Ports. Later on that production of butter seemed to die out completely ; for what reason I cannot tell, except that they probably found it cost money to produce butter and that it was cheaper to sell the cattle or something of that sort. And then at that time too there was, comparatively speaking, a much larger export of wool than there is to-day. But we are getting back again to a better position in those respects.

5467. But the position is no better than it was ?—I think it is.

5468. Although those exports have died off ?—Yes, I am sure it is. The position has changed. The local consumption is much greater than it was.

5469. Then as regards the future, as far as Pretoria is concerned, do you look upon it as having an agricultural future—as a city that will depend largely for its existence on the primary products of the earth ?—I look upon it as becoming in character—though possibly to a lesser extent in degree—a second Winnipeg. I also believe that the mines which have been already discovered are only the forerunners of those that will follow.

5470. But that is problematical ?—I think the probabilities are in favour of that belief

5471. Has the population of Pretoria grown lately ?—Not lately.

5472. Do you think you can approximate your tobacco to European taste and standard ?—I think it is mainly a question of selection of soil and seed and skill in the manufacture and production of the tobacco

5473. And you hope you will be able to do so ?—I see no reason why we should not.

5474. **(Mr. Sinclair.)** Can you tell us what proportion of a normal crop of maize this district has produced during the last three years ?—We have applied for the figures from the Agricultural Department, and they could not give them to us.

5475. You cannot tell us ?—No.

5476. Which would be the more sensitive to droughts, do you think, maize farming or dairying ?—I think maize production would be the more sensitive.

5477. Then that would be an additional reason, would it not, for directing greater attention to what you have referred to as mixed farming ?—Yes. I may say that not only is maize itself a food and a marketable product, but the stalk is an exceedingly valuable article of food for cattle. When the maize crop has been taken off, the cattle go into the maize fields and eat the dry stalks of the maize, and the product of milk increases very much. As an ensilage plant it is second to none, I suppose. It is a magnificent fodder, and this is only just beginning to be used. It is going to assist wonderfully in establishing dairy farming in this country.

5478. You think that maize farming is more sensitive to drought than dairy farming ?—I think they are both affected, but I think maize is more affected than dairy farming, for this reason. Because even with a failure of the maize crop you may get a sufficient crop to fill your ensilage pits, which would form a very fair proportion of food for your cattle. In that way, of course, it is not so sensitive.

5479. And your belief is that as each year passes, as a result of boring operations, and as a result of dry farming, more will be done to make the farmer less affected by periodical droughts ?—Yes.

5480. Is there much dry farming done in this district ?—It is extending every day.

5481. That is the system of cultivation which preserves the moisture in the soil, so as to lessen dependence on rainfall ?—Yes, and to take every precaution in the way of crops that will make the farmer independent or only partially dependent on the one crop.

5482. And is it extending in your district generally ?—Yes. And there is one phase in regard to dairying more particularly that I would like to mention. In time past, the cattle were entirely dependent on the veldt, and after a period of protracted drought the grass becomes so dry as to be almost useless for fodder, and the cattle in a very dry spring would get into a very poor condition. Dairying suffered materially in consequence of that. Now, with the introduction of ensilage and the gradual increase of it, it means that cattle are kept in better condition, the progeny is more certain, and dairying prospects very materially brightened. But I should also like to say this, that in regard to our farming we are still to a great extent experimenting, and you must not think that we are altogether slow. Look at the progress of Canada : well, it has only progressed and developed during the last twenty-five years. They have only recently found out what they could do with the land there, and we are labouring under the same conditions very much. But as to our future I have no doubt, though we still have a good way to go.

5483. I want to ask one general question ; has not the attraction of gold-mining and diamond-mining in the past put farming generally somewhat in the background ?—It is so, no doubt.

5484. And you will have your great farming industry to fall back upon after the last mine has disappeared ?—Yes, a permanent source of wealth. And in those days it will come to its own.

5485. To the good of the whole Union ?—Yes, anything that tends to the development of one part tends to the development of the whole.

5486. **(Mr. Garnett.)** In answer to Sir Rider Haggard on the subject of irrigation, you said you thought that with irrigation a farmer might hold his own, and that otherwise, after a period of drought he would need two or three years to recuperate. I suppose you would agree that if water conservation were practicable in this district, it would be of great advantage ?—There is no doubt, and we are feeling our way now in regard to that matter. Let me give you an example. On a farm we have been holding for some years we are only now just beginning to use the underground water supplies, but we have to be careful, because we do not know to what extent these supplies exist. At present we are putting, perhaps, 50 or 60 acres under cultivation. I do not know whether Sir Rider Haggard will remember the agricultural conditions of the Zoutpansberg and Waterberg districts in the days he was here, but in those days wheat was sold in Pretoria for something like 10*d.* a bushel, wheat which would equal the finest that the world could produce. If we could have some method of water conservation in the Waterberg district, and that particular area known as the Springbok Flats could be brought under cultivation, there is the prospect of that becoming an immense producer of wheat. But the difficulty is to get the conservation of water. But I do believe that there are large areas in these flats where we can be saved from total drought, and where we can live through the drought and make money in the good years to tide over the lean years. Every pound the farmer makes during the good years helps him to carry over the dry times.

5487. And you have large areas which could be irrigated with an expenditure of money ?—Yes.

5488. By conserving the water that is running away to the sea in flood times ?—Yes. But the rainfall over that area is not very great.

5489. All the greater reason for catching all the water you can ?—Yes.

5490. That will, of course, enable you to grow a number of other crops—stock foods—and so forth ?—Yes.

5491. You are then very greatly in favour of water conservation ?—Yes.

5492. **(Mr. Tatlow.)** Has dairying on co-operative principles established itself here yet ?—It has been tried, but most of those who were interested were inexperienced and went a little too quickly.

5493. Do you believe in that system for helping the development of the country?—I think myself the best system is that which is developed by individual effort—like that of Joseph Baynes in Natal. I think that is where our future lies, and I think that one or two farmers joining together in the marketing of their produce and in the development of the dairy business would do more good than any big schemes. The thing would grow and increase automatically, as it were. But I think that where you attempt to carry on the business on a large scale before trying on a small scale first, you are very likely to fail. It is no use trying to force it, it will develop in the ordinary course of things.

5494. These societies which were established and did not flourish—were they established or assisted by the Government?—I think the Government rendered assistance, but, generally speaking, they were carried out by farmers who took it up on the glowing accounts of the success attained elsewhere. But they forgot that in other places it was a gradual growth. Here they started on a big scale to begin with. That, to my mind, was the secret of their non-success.

Mr. IZAAK JACOB HAARHOFF, J.P., called and examined.

(*For the evidence of this witness on "Land Settlement," "Forests," and "Fruit,"* see *pp.* 45, 301, *and* 319; *and on "Mining,"* see *p.* 33 *of* [*Cd.* 7707].)

5495. **(Chairman.)** What have you to tell us on agricultural development?—There is one point I should like to suggest, if I may, and that is this. Is it not possible for the British Government to arrange with our Government here to take tobacco at a certain price for the Navy? If our farmers knew that they could get 6*d.* a pound for all they could produce it would result in a great development of the tobacco-growing industry. Rustenburg has always had a name for tobacco, and it has been proved that there is no district where you can grow it better, but it can be grown almost anywhere in the Transvaal. Then the bacon question has been touched upon by one of the members of the Commission, and I would like to mention that in the Cape it has been a success, at Wellington. But they have tried the bacon industry in Natal at Nel's Rust farm and they cannot make it a success. I am inclined to think it is the climate, because you can buy ordinary pork to-day here at the same price as in England. The scope is there and if the market was there I think you would get more. Now, in regard to dairying; as far as I remember we have four dairies in the Transvaal, one at Ermelo, one at Middelburg, one at Standerton, and one at Potchefstroom. They are turning out a fair amount of stuff and taking the cream from the farmers. The cans are put on the trains as they pass down the line daily. Even Natal is taking cream from the Transvaal to day.

5496. **(Mr. Sinclair.)** You spoke about tobacco and you expressed the hope that the British Government could be induced to do something. Do you suffer from inability to get markets for the tobacco?—Well, there was a big surplus from the last crop.

5497. Do you suffer from tobacco trusts?—In a sense we do.

5498. You cannot get a market for what you grow under existing conditions?—No.

5499. And it is one of the industries that you believe would largely develop in the future if you could only secure a sufficient market?—Yes.

Mr. JOHN BRUCE MOFFAT, DIRECTOR OF CENSUS, and formerly SECRETARY OF THE ECONOMIC COMMISSION, called and examined.

(*For evidence of this witness on "Statistics,"* see *p.* 128 *of* [*Cd.* 7707].)

The witness had previously been asked whether he could give evidence to the Commission on the following points: The general balance of imports and exports to and from South Africa, with particular reference to the small agricultural production and the large deficit of wheat, milk products, and other articles of consumption which South Africa has to import; the prospects regarding these questions, and the effect on imports and exports of possible diminution of mining production.

In reply the witness furnished the following memorandum:—

To deal adequately with the question of the small agricultural production of the country would require more time than I have had since receipt of the Secretary's letter.

It is only since the war that attention has seriously been given in this country to agriculture as distinguished from pastoral farming.

The census returns for 1911 show considerable development in agriculture since the previous census in 1904. This development is continuing, and although there must be periodical checks owing to bad seasons there is a prospect of production approaching, if not overtaking, consumption.

Lack of facilities for getting produce to markets has discouraged the development of the agricultural resources of the country. This is being gradually remedied by the building of railways throughout the country. Although this country may be able before long to meet the local demand for foodstuffs, it will be many years before it can hope to seriously compete with profit in the world's markets, which are supplied by countries in which agriculture is carried on on a more extensive scale and in which, consequently, the cost of production must be very much lower than it is in this country.

5500. **(Chairman.)** You say that attention has only seriously been devoted in this country to agriculture as distinguished from pastoral farming since the war?—Yes, practically.

5501. And since the war is it within your knowledge that great progress has been made?—Yes, the census return for 1911 shows great development since 1904.

5502. Can you summarise the particular heads under which great progress has been made?—I could give you the figures. In regard to the production of wheat in the Union, in 1911 it was returned at 1,810,000 muids and the figures for 1904 are 708,000.

5503. Have you figures before 1904?—No.

5504. There is no comparison with the years before the war—1898 and 1899?—Well, we might get the 1891 figures from the Cape.

5505. 1904 is starting, of course, from a very low level; is that not so?—Yes, we can give you the figures, I think, for the Cape in 1891, that is the previous census, and the Cape collected statistics between the 1891 census and the war annually.

5506. Will you give us further figures between 1904 and 1911?—Yes; maize was 8,632,516 in 1911 and 3,611,588 in 1904. Potatoes show very little difference.

5507. With regard to the number of animals?—In the Union as a whole, from 1904 cattle increased by 65 per cent.

5508. Can you give the figures?—Well, I have just the figures here. The increase was 2,286,000.

5509. **(Sir Rider Haggard.)** Was that for the Transvaal?—No; for the whole Union. Of course, the country was practically denuded of stock in the war.

5510. **(Chairman.)** Can you give the number now?—Well, in 1911 there were 5,796,000 cattle, and in 1904 3,500,000. As regards sheep, in 1911 there were 30,656,000, and in 1904 there were 16,322,000.

5511. And pigs?—They went from 679,000 to 1,081,000; horses from 449,000 to 719,000; mules decreased from 134,000 to 93,000; donkeys increased from 141,000 to 336,000.

5512. You take the view then that the country will, in the course of a short time, be able to supply its own wants in the way of food-stuffs?—I think it will.

5513. In what period?—That is rather difficult to say, but I should say in ten years' time we should be able to do it.

5514. But you do not anticipate that production will increase to the extent of making this an exporting country?—Ultimately it may; but until agriculture is carried on on a large scale we cannot hope to compete with countries producing large quantities.

5515. What have you to say in regard to this country becoming a meat-exporting centre?—I think it may, possibly.

5516. What proportion of the meat requirements do you now supply?—I think we import about 10,000,000 or 11,000,000 lbs. of meat. That is a comparatively small thing; we cannot give you figures of the actual consumption.

5517. Is your consumption increasing here?—It is very large. People eat a great deal of meat in this country.

5518. But you cannot say whether it is increasing as compared with 1904?—No.

5519. **(Mr. Sinclair.)** At the conclusion of your précis you say it will be many years before this country can hope to seriously compete with profit in the world's markets which are supplied by countries in which agriculture is carried on on a more extensive scale, and in which, consequently, the cost of production must be very much lower than it is in this country?—Yes.

5520. You refer, I take it, to such products as wheat and maize?—Yes.

5521. And the exportation, when the time comes, of sheep's carcases?—Yes.

5522. You do not refer to butter and cheese, which, I suggest, are largely increased in production as large areas are cut up into small farms?—I was not thinking particularly of butter and cheese, but more of wheat and maize.

5523. I have only one further question. You told us when you were referring to the increase of stock that your sheep had nearly doubled in the period which you covered, but you have not exported frozen mutton. You have not exported any of your carcases; you have kept your ship to use on your large areas?—Yes; there have been one or two trial shipments of mutton, but nothing very much.

5524. It has not become a commercial line?— No.

5525. **(Mr. Garnett.)** Can you give us your average production per acre of wheat?—No, but I have the area return.

5526. You have not got the number of bushels?— No; but we have the area return as under wheat, 379,000 morgen. It works out at about 5 muids, or 1,000 lbs. a morgen. A morgen is 2 acres and one-ninth.

5527 **(Sir Rider Haggard.)** Could you give it in bushels?—Well, it could be worked out roughly.

5528. **(Mr. Garnett.)** There are 60 lbs. to a bushel?—There are 3 bushels to a muid, and the production is 1,810,000 muids. That is, roughly, 5 muids to a morgen, that would be 7½ bushels to the acre.

5529. Well, that is lower than other figures which we have had put before us in this country.

5530. **(Sir Rider Haggard.)** That is lower than in Australia?—Of course, I do not know whether these figures of areas under cultivation can be absolutely relied upon.

5531. **(Mr. Garnett.)** The reason I put the question to you is this—You do not think you would be able to export, but from other figures we have had it seemed that your figures of production were considerably greater than for other countries which exported wheat?—I cannot say definitely what the production per acre is.

5532. **(Sir Rider Haggard.)** We should be glad if you could let us have figures?—I started to work it out in the different districts but the results varied so considerably that the figures were evidently wrong.

5533. **(Sir Alfred Bateman.)** Those figures are not very reliable, are they?—No, I do not think so, but we are proposing to collect statistics of agriculture by the department very soon.

5534. **(Mr. Garnett.)** I submit that this has a very important bearing on the question?—Yes.

5535. **(Chairman.)** Well, you might give us what you can, will you?—Yes.*

5536. **(Mr. Tatlow.)** You say that lack of facilities for getting produce to market has discouraged the development of the agricultural resources of the country. Has that lack of facilities been serious? Does railway construction lag seriously behind the agricultural industry?—It did up till ten years ago.

5537. Is it doing better now?—Yes, the railways are extending. For instance, there is one area in the north-west of the Cape Province which promises to be an excellent source of wheat supply. They were 230 miles from the railway, but they are now building a railway to that part.

5538. You spoke of the difficulties of this country competing in the world's markets for agricultural produce. In that matter do you not think that this country has a great advantage over other countries in the matter of cheap labour?—Well, people say we have cheap labour, but I do not think it is cheap.

5539. Do you not think it is cheap as compared with Australia and New Zealand?—No, you certainly pay less for it, but it is not so good. I think it is a mistake to talk about farmers having cheap labour.

* The witness subsequently furnished returns of agricultural produce and live stock for the Cape and Orange Free State Provinces, printed as Appendix IV., p. 271.

Pretoria, Tuesday, 31st March 1914.

Mr. CHARLES ELIAS GRAY, M.R.C.V.S., Principal Veterinary Surgeon, Department of Agriculture, Union of South Africa, called and examined.

5540. **(Chairman.)** Will you give us a brief statement on the subject of the success which you have met with in eradicating the various animal diseases in the Union?—In regard to that I must say we have met with a very considerable measure of success since the Department was first established.

5541. That is four years?—No, ten years. It will be understood, of course, that so far as animal diseases are concerned you may sub-divide them into two classes, that is one class with respect to which we know the method of spread, and another class in regard to which we are not fully advised and about which investigations are still taking place. Well, as far as the diseases are concerned that we know about and understand the methods of spread, the outlook is very satisfactory. That class of disease has been handed over to the Administrative Division of which I am the head. On the other hand in regard to diseases whose causes have not been definitely made out, they are at present engaging the attention of the research division of which Sir A. Theiler is the head. Now the Administrative Division is called upon to administer a Stock Diseases Act, under which certain very important diseases are scheduled. With those diseases we have been, I think I may say, very successful, and have made very satisfactory progress indeed. Perhaps the most important which we have been called upon to deal with has been the East Coast fever, that is the tick-communicated disease introduced into this country about eleven years ago. When it first came in we were not acquainted with its method of spread and we did not quite know how to combat the disease, but investigations which were made pointed the way out of our difficulties, and in following out the policy which has been adopted in that direction, and which was based upon our knowledge of the disease, we have been very successful indeed. I have prepared a short statement here showing what has been done in the Transvaal.

I have been in charge, I may say, of this division, the Administrative Division, since 1905. When I came down here a very large section of the Transvaal was invaded with East Coast fever. That disease is a very difficult one to deal with on account of the long period during which infected areas retain the infection. They remain infected for fifteen months, and fifteen months' quarantine is necessary before we can be satisfied that the place is clean. At first we dealt with it by killing off the infected herds, compensating the owners, and fencing. Later on it was discovered that the disease could be satisfactorily combated by the erection of dipping tanks and frequently dipping the animals in order to free them from the ticks, and as our discoveries proceeded we altered our policy to fit in with the results of our investigations. In 1904 in the Transvaal, and I refer specially to the Transvaal now, because I can give you the best idea of the condition of things in this Province, we had 400 outbreaks of this disease, over 14,000 animals died. But that is an estimate which is very much under the real figures. In 1905 we had 214 outbreaks. In 1906 we had 98. In 1907 we had 63. In 1908 we had 142. In 1909 we had 104. In 1910 we had 131. In 1911 we had 45. In 1912 we had 25, and the country is now being rapidly cleaned out, because while these outbreaks are diminishing we have been able to release farms from quarantine and open up the country for the movement of stock. I have also prepared a short statement showing what has taken place in other parts of the Union since the various departments were amalgamated, but I cannot go so far back as I can in respect to the Transvaal. The area which is most seriously affected by the East Coast fever at the present time is the native territory of Transkei. That country is pretty well invaded by the disease, but steps are now being taken there to erect dipping tanks and to fight this disease and we expect ultimately to be able to eradicate it even there. The disease has also invaded the Cape Province, but the fight which has been put up in the Cape Province has been so strenuous that the disease has made no headway and we are stamping it out in that Province. In the Province of Natal the position, of course, is not altogether satisfactory yet, but a very large number of dipping tanks have been erected by the farmers in that Province, something like 1,300 to 1,400 altogether, and the Government in addition to that are erecting dipping tanks in the native locations and the native areas and fighting the disease in those localities by means of this system of dipping, so that the position even in Natal is also rapidly improving, and the outlook in that direction is quite satisfactory under the circumstances. After this, perhaps the most important disease, or at least the one that is giving us cause for most anxiety at the present moment, is tuberculosis. We have not yet got a great deal of tuberculosis in this country, so far as our information goes, but our information is not very full or complete. The area in which we know most about the disease perhaps is the Cape Peninsula, where a considerable amount of testing of dairy herds has been carried out. There we have tested, I may say, over 17,000 head of cattle, and in that 17,000 head of cattle, I think we found about 3·7 per cent. of the animals tested had proved to be infected with tuberculosis, which is a very satisfactory state of affairs so far as it goes, when you compare that with the position in Europe, where at least 30 per cent. of the cattle are said to be affected. Take Great Britain, for instance, you can say without hesitation that at least 30 per cent. of the cattle in Great Britain are infected with tuberculosis at the present time. Therefore, I think, it is not too late yet for us to take still more vigorous action and more vigorous steps in connection with the eradication of this disease. We test all imported animals in order to make sure that we are not getting any infected animals brought into the Union from over sea, but we find a certain proportion of them are infected although that proportion is a comparatively small one. Most of the people who import stock from over sea at the present time take the precaution to have them tested before bringing them out, but I may here mention that it is possible for the animals to be fortified against the test and it takes some considerable time for the immunity conferred by fortification to wear off. Therefore, there is no doubt that although we find infected animals are brought here from over-sea, which animals have been tested on the other side, it does not reflect on the good faith of the people who have carried out the test at home, and it may be regarded as evidence of the fact that in some cases, at all events, the animals have been tampered with before the test, or that the animals had been in the initial stages of the disease, and the disease was not sufficiently developed to enable the animals to react to the test. Then I may also say in regard to tuberculosis, there is one interesting fact that has been brought to our notice in the last year or two, and that is this, that the disease is not confined to cattle in this country alone, but we also get it amongst pigs. A fair number of pigs have been found to be affected by tuberculosis when sent to the Johannesburg abattoir. It has been a matter of conjecture as to how these animals originally became affected and we have made inquiries to ascertain the probable cause of the infection and what we have found out is this, and it is an interesting point, that these pigs very largely come from native territories, and not only is that the case, but the strain of infection that we get amongst these pigs is of human origin. As you may be aware there are two strains of the organism that causes tuberculosis, the human strain and the bovine strain. Now, these pigs that have come from native territories, in many cases, though not in all, have been proved to be infected with the human strain and the reason for that has been attributed to the scavenging habits of these pigs, which have become infected from natives who have contracted tuberculosis.

5542. Do you mean corpses?—No, they scavenge round the kraals, and become infected by means of expectoration, and so on. Now, passing on from tuberculosis—a disease that is causing us a great deal of anxiety is anthrax. There is no doubt that it is increasing in this country to a very considerable extent. Our records since the war show that anthrax has increased very considerably. I will give the figures in regard to anthrax which have been recorded in the Transvaal since 1904. In 1904 we had three outbreaks, but this small figure may have been partly due to neglect on the part of the farmers to report outbreaks of the disease. In 1905 we had 11. In 1906 we had 10. In 1907 we had 9. In 1908 we had 13. In 1909 we had 17. In 1910 we had 57. In 1911 we had 68. In 1912 we had 104. There is no doubt that this increase in the prevalence of anthrax is largely due to a want of care displayed by farmers in disposing of infected carcases. We have published warnings, we have issued circulars describing the disease, we have communicated with the Press, but in spite of all these steps there is still a great lack of care on the part of farmers in disposing of the carcases of animals that have died of anthrax. It follows that the disease will undoubtedly become more prevalent in those areas in which odd cases have occurred, and it is giving us cause for considerable concern at the present time. There is a disease called gall lamziekte, which is prevalent in the South West Transvaal and adjacent districts. There, I am sure, it is the custom with many of the farmers to put down all deaths of animals to this so-called gall lamziekte, which is not contagious in the ordinary sense of the word, and the consequence is that if an animal dies from anthrax, it is very often cut up and carried away and skinned, on the assumption that it died from gall lamziekte, and the veldt in that area then becomes infected. Of course, the disease can be checked by inoculation, and we are carrying out a considerable amount of anthrax inoculation at the present time. But the number of people who comprehend the benefits derived from inoculation compared with the number of people who are careless in handling outbreaks is very small. The next in importance, perhaps, as far as this Division is concerned, is glanders. Glanders is a disease of horses communicable to human beings, and it was very prevalent in this country after the war, but since then it has been steadily diminishing. In 1904 we had 158 outbreaks

and they have now dwindled down to 40 in 1912 in the Transvaal. The position now is more satisfactory. Next comes lung sickness, or pleuro-pneumonia, which is a disease known and recognised in Europe as well as here, and was very prevalent in this country after the war, but the measures which have been taken in order to control it and stamp it out have been very satisfactory. In 1904 in the Transvaal we had 256 outbreaks, and in 1912 we had only 7, so that, generally speaking, all along the line I think we can claim that, in respect to proclaimed diseases, we are making very satisfactory progress. Of course, our work is not confined to this, we have other work to do, and we are carrying out a considerable amount of horse inoculation at the present time by means of serum, for the protection of animals against horse-sickness, both mules and horses. This serum has been prepared at the research laboratory for some time, and the immunisation of the animals in the field is work carried out by officers of the Administrative Department. During 1912 we inoculated a very considerable number of horses, nearly 500, with very satisfactory results, but the mortality was something like 12 per cent. resulting from the inoculation. This is not as satisfactory as we could wish, and endeavours are being made by the research division to improve the quality of the serum and reduce the death-rate, that is, for horses. In the case of mules we have for some years past succeeded in immunising them with very satisfactory results indeed. The percentage of mortality, as far as mules is concerned, is considerably less than in regard to horses. The figure is about 4 per cent. Generally speaking, the results have been all that one could wish, and this inoculation, of course, has been of the greatest assistance to European farmers living in horse-sickness areas. I do not want to take up your time unduly, or I could go into further details. I do not know whether there are any other points which I can emphasise, but if you care to ask me any questions, I shall be pleased to answer them.

5543. **(Sir Jan Langerman.)** There is one question. You spoke about tuberculosis in pigs and you traced it back to the Kaffir kraal. Presumably those are Kaffirs suffering from phthisis. How do you connect phthisis with tuberculosis, they are quite different?—No, they are due to the same causes, the same organism.

5544. But it is not the same disease?—Yes, it is.

5545. On the mines a man suffering from phthisis is not regarded as suffering from tuberculosis at all?—Yes, he is.

5546. No, because they make a distinction as to compensation?—They may do so, but the cause is the same in both cases, it is the same organism.

5547. It attacks the same organ, that is true, but is it the same disease?—Yes. Phthisis is a condition in which the lungs are invaded by the specific organism of the disease, that is tuberculosis. Of course you may have general tuberculosis of any organ in the body, that is the only difference however.

5548. How far have you gone in dealing with gall lamziekte?—That is engaging the attention of the research division to-day. They have been working on it now for the past ten years. It is a disease that has caused very heavy mortality, principally in the western parts of the Transvaal, in Bechuanaland, and in some parts of the Cape Province and it has baffled all researches up to date and all investigations. The only evidence that we have been able to find which points to the probable cause has been these experiments which we made some time ago. The disease is believed to be due to dietetic causes, probably some deficiency of nutrition in the food. Experiments were made some time ago by the research division with 100 head of cattle. Fifty head were taken to a farm in which this disease was very prevalent. They were muzzled and put on the veldt and allowed to run with the other 50 which were unmuzzled, the muzzled ones being fed at night. But all these animals ran together and drank out of the same pools. The consequence was that out of the animals that were unmuzzled something like eight head contracted the disease, but of the muzzled animals not a single one got the disease. Now that is rather significant and it rather points to the fact that the disease is dietetic.

5549. Is it a fact that the disease is travelling eastward?—I do not think it is. I think the incidence of the disease depends considerably upon the climate, it is due to climatic conditions. The prevalence of drought and the succession of droughts seems to favour the appearance of the disease, there is no doubt about that, I think. If you have a very dry year you are likely to get a good deal of it. We have had a succession of dry years of late and the condition has throughout been aggravated, and we consequently hear more about the disease than we did a few years ago, but I do not think it is invading new areas at all.

5550. **(Mr. Garnett.)** I would like to ask if this disease could be described to us. What are its symptoms?—It is a peculiar disease and it attacks to a very large extent cows in calf and cows that have recently calved, although it is not confined to them. You get two types of the disease: the acute form, in which the animal may appear to be in good health the night before and the next day will be dead; or you may get the chronic type, in which animals may linger for months and may ultimately recover and afterwards get a second attack and then die. The symptoms of the disease are peculiar to South Africa, as far as I know. The chief symptom is disordered locomotion, the animal is stiff in its movements, it lies down with great difficulty, and when it does lie down, although it may eat and appear to be in good health, it shows a disinclination to get up, and ultimately the limbs become more or less paralysed. They lose the power of motion, and this paralysis extends to the general muscular system, until finally the animal dies. So far as I know it is confined to South Africa and it has been very prevalent during the past few years in certain parts of the country, so much so that people have had to give up cattle-farming altogether. You can well understand that if cows, after they have calved recently are victims of this disease, there is very little hope for stock farmers doing anything on farms where the disease is prevalent.

5551. **(Sir Alfred Bateman.)** Are you in communication with the Board of Agriculture at home?—Yes.

5552. Do you derive any benefit from their experience?—Yes, we follow their work very closely and I may just mention that the Principal Veterinary Officer of the Board of Agriculture at the present time was my predecessor here in the Transvaal, and so naturally we are very much in touch with one another.

5553. And are you in communication with the Imperial Institute in London?—No, not to any great extent.

5554. I thought they were of use some time ago in finding out something in connection with a certain plant which you sent to them for investigation?—Yes, but it did not go through us. They do carry out investigations in regard to poisonous plants. We collect the material and send it home.

5555. But you would not know the result?—Yes, they generally advise us of the result.

5556. **(Mr. Sinclair.)** Generally speaking, you think that satisfactory progress has been made in the treatment of the various diseases you have spoken of?—Yes, I am satisfied of that.

5557. You spoke of anthrax being one disease which has caused you considerable trouble. Now, are there public abattoirs in the various districts, I mean licensed abattoirs?—Only in the large towns. In some of the towns they are exceedingly good. The one in Johannesburg, for instance, would compare favourably with any abattoir in Europe, but in other parts of the country the arrangements for the slaughter of animals are very primitive.

5558. And is there any systematic inspection of animals slaughtered at these abattoirs?—No.

5559. **(Mr. Garnett.)** Could you just tell us as shortly as possible what are your dipping arrangements. We have had some difficulty in finding out whether the dipping system is compulsory everywhere, or whether it is more or less permissive, that is, whether certain areas can be proclaimed as dipping areas or whether it is compulsory all over the Union?—What we do is

this : we preach the doctrine of dipping to all farmers, and urge them to go in for it not only for the purpose of protecting the stock against East Coast fever, but also to protect it against other diseases as well. When an outbreak occurs on a farm we have legal power, which we exercise, to order compulsory dipping on that farm, and we compel the owner to put up a tank. That is the power we exercise so far as the districts are concerned which are infected. In other districts we try to get the majority of the farmers on our side and get them to ask for compulsory dipping. It is very often the case that in a district where East Coast fever is prevalent the farmers ask for compulsory dipping.

5560. Then at the present time it is more or less permissive ?—Yes, it is more or less permissive.

5561. It is not by universal application ?—No.

5562. Then it is some time before you may expect to eradicate the tick ?—Yes.

5563. Do you say that these regulations are being made applicable to the native territories in Transkei ? —Yes, they are.

5564. To return to this question of testing imported stock to find out if they are suffering from tuberculosis, I just want to ask one question about the doping. I gather from you that it is quite possible for a veterinary surgeon to give a certificate that the beast is free from tuberculosis in absolutely good faith ?—Yes.

5565. There might possibly be collusion, but it does not necessarily follow that there is ?—Quite so.

5566. The most perfect *bona fides* might be exercised, and yet a man might give a certificate that the beast was not infected when it actually was ?—Yes. I know one or two men at home who specialise in the testing of animals, and who are absolutely above suspicion of anything of the kind, and yet it is possible for them to pass animals which are suffering from tuberculosis.

5567. In regard to this dipping again, do you find much opposition on the part of the natives to the dipping system ?—No, they are very teachable. In the Zoutpansburg district I may say that the natives have even gone to the extent of paying up the money themselves to erect the necessary dipping tanks. They simply want to be led. If they have a good Native Commissioner in whom they have confidence, they will take up these things themselves. There are cases that I know of where they have actually clubbed together to put up a tank.

5568. Then there is no danger of those areas being kept as sanctuaries for the breeding of ticks ?—No.

5569. What you said about ticks and tuberculosis was very interesting, and we have had it stated in evidence that tuberculosis is increasing among the natives. Now, without going into the question as to whether bovine tuberculosis is communicable to man, have any researches been made into the question of porcine tuberculosis as to whether it is communicable to human beings ?—I think the risk is very small in that respect, because when you get a pig infected with a human strain of tuberculosis bacillus the lesions are of a very limited character, and they are more or less localised, and the chances of people getting the disease in that way would be very very small. Why I mentioned the thing was this—the gentleman who gave evidence before me remarked on the way in which tuberculosis was spreading among the natives, and I brought out that fact as evidence in support of his contention.

5570. All I wanted to know was whether tuberculosis among pigs came from human beings, or whether it was worked backwards, and human beings were contracting it from pigs ?—I should say, No.

5571. Now, you have had serious outbreaks of anthrax, you say ?—Yes.

5572. Among sheep and cattle ? — Mainly among cattle. In some places horses have been affected, in the Kimberley district, for instance.

5573. But you have had no complaint of anthrax being present in your wool shipments ?—No, not to any extent.

5574. Has it been reported ?—No.

5575. What regulations have you in regard to the disposal of carcases of infected animals ? Have you regulations prescribing that they shall be consumed by fire or buried in quick lime ?—They have to be disposed of according to the instructions of the Chief Veterinary Surgeon. If they are not burned they must be buried at least 6 feet down, preferably in quick lime, in places where water is not likely to be contaminated.

5576. Have you had many fatal cases among human beings ?—Yes, undoubtedly there have been some. We have had cases among the natives, but they are not always fatal. We often get cases among the natives because they are very careless, particularly along the Reef. Along the Witwatersrand the local conditions are such that the spread of the disease is favoured. If an animal dies, sanitary fees have to be paid for the removal of the carcase, and many owners of a single animal or one or two beasts, if they die out on the veldt and the thing is reported to them, do not claim the animal, in order to evade payment of sanitary fees, and the consequence is that very soon the natives come out of the nearest compound and carve the animal up and carry it away. Of course, these conditions favour the spread of the disease very much.

5577. You gave us figures of 104 outbreaks. In which year was that ?—That was in 1913.

5578. How does this year compare ?—I think it will work out just as high.

5579. Then you have not got control over the disease yet. You have not really grappled with it sufficiently ?—No, because we have not been able to impress upon the farming community the serious nature of the disease.

5580. (**Sir Rider Haggard.**) This anthrax is also found among ostriches ; is it not ?—Yes, it has been discovered in the Grahamstown District among ostriches. Formerly it was supposed that birds, on account of their high temperature, were not susceptible to the disease, but cases are on record in the Grahamstown District in which ostriches have died from anthrax, but it is not usual.

5581. Is the ostrich anthrax communicable to cattle ? —Undoubtedly, it is the same organism.

5582. Because I have been told of a case in which many ostriches were found to be suffering from this disease. In this instance I was informed that the strange thing was that cattle running with those ostriches were not affected ?—Well, the farmer must have been rather careful in disposing of the carcases perhaps, but the same disease is transmissible to human beings, to cattle, to sheep, and to ostriches.

5583. This dipping system appears to be the great specific for many ailments that we used to have in South Africa in former times, and especially for East Coast fever. Is there any disease that is not amenable to dipping ?—Yes, it would not have any effect upon lung sickness, for instance, it would not have any effect on rinderpest nor on foot and mouth disease, nor on gall lamziekte, nor on anthrax, nor yet upon horse-sickness.

5584. But there are people dipping for horse-sickness, are there not ?—Yes, there are, but it has not yet been shown that it is beneficial. Some people believe it is, but it has not been satisfactorily demonstrated. And then again there is the fly disease, the disease caused by the tsetse fly. I very much doubt if dipping would be a preventive of that.

5585. So there are still a good number of diseases for which dipping is no remedy, especially lung disease ? —Yes, those you cannot fight by dipping.

5586. Is lung sickness as prevalent as it used to be ?—Not nearly as prevalent, we have very very few outbreaks now, even in the Bechuanaland district where it used to be so prevalent.

5587. But dipping has materially altered the situation as regards stock farming ?—Yes, there are a good many diseases for which dipping is a satisfactory remedy. For instance, what we used to call gall sickness and bush sickness, red-water, and East Coast fever—there is no doubt that all those diseases can be met satisfactorily by dipping.

5588. And the rest can be kept off by isolation ?— Yes, and by proper sanitary measures.

5589. And by paddocks ?—Yes.

5590. Speaking generally as regards animals, you would say the outlook for agriculture in the Union of

South Africa is better than it has ever been before?—I should say so.

5591. To a marked degree?—Yes.

5592. Have you an adequate number of veterinary surgeons in private practice here?—Very few.

5593. Is there work for more?—Yes, there is.

5594. Remunerative work?—Well, that is an open question; I am not so sure about that, but there is lots of work we could do with a larger Government staff than we have at the present time. It is certainly not big enough.

5595. **(Mr. Garnett.)** Just one more question. I understand you are the Principal Veterinary Surgeon of the Union?—I am.

5596. When I was in the neighbourhood of East London a short time ago I had occasion to visit a farm, and on the way I passed through some country that seemed to be excellent pastoral country, rich downs, and yet it was almost bare of stock. On inquiring the reason, I was told that the tick had driven everything away, but now since they have applied this dipping system they expect that the country will once more become a good pastoral country?—Yes.

5597. There are a few cattle there, about 200, and they seemed to be in very good condition?—Yes. Of course, in the East London district we have this disease of East Coast fever very bad, and that has caused a great deal of trouble down there, and it has hampered very largely the development of this fine pastoral country. Another thing which has also had a very serious effect on the development of that district has been the prevalence of heart-water among sheep. That disease is also contracted by a tick known as the bont tick, because of the fact that it is spotted on the back. Well, by dipping you can get rid of that tick, and after you have got rid of the tick you can re-stock these farms.

5598. The general result then will be to bring in vast areas of country that are at present unsuitable, or that have been unsuitable in the past for pastoral farming?—Yes, particularly the coastal areas, which are extremely well suited for the breeding and raising of dairy stock, and in many places for sheep.

5599. **(Chairman.)** You will send the Commission a statement in regard to tuberculosis and doping?—Yes.*

* *Note.*—The witness subsequently supplied the following statement:—

I wish to make it clear that I do not believe it is customary for British breeders of good repute to fortify their cattle with tuberculin in order to enable infected animals to withstand the tuberculin test applied in Great Britain as a usual preliminary to export; nor do I suspect there is any collusion between such breeders and the professional men who are employed to furnish certificates as to the freedom of the animals from disease in such instances. At the same time we find, on re-applying the tuberculin test one month after imported animals have landed in this country, that a certain number of cattle do react to the test (19 out of 557 tested within a period of 15 months), and although the circumstance that they have not reacted when previously tested in Great Britain may be explained in some instances by the assumption that the disease was in its incubative stage on the occasion of the first test, post-mortems made, in some instances, certainly warrant our coming to the conclusion that their failure to react cannot be attributed to that cause, and may, and probably are, due to the fortification of the animals with tuberculin as a preliminary to the original application of the test made before shipment.

Pretoria, Wednesday, April 1st, 1914.

Mr. Alfred George Robertson, Mr. W. A. Pilkington, Mr. F. R. N. Findlay, Major Richard Dines Doyle, D.S.O., Mr. J. L. Van Heerden, and Mr. T. Kleinenberg, representing the Transvaal Agricultural Union, called and examined.

5599*a*. **(Sir Alfred Bateman.)** I am very pleased to see you although it is now the eleventh hour, and to hear your views on the points you have submitted. I wish we could have had your memorandum earlier, but we have only just this moment received it, and none of us have had time to read it, and some of the members have left for Johannesburg already, including the Chairman.

The following is the memorandum referred to:—

(The portions relating to "Irrigation," to "Cotton," and to "Fruit" are printed on pages 52, 286 *and* 320.)

Cattle.

There can be no doubt that within the past few years considerable improvement has taken place in the quality of the cattle which are being kept by progressive farmers, and there is likely to be further improvement in the near future. This state of affairs is very largely owing to the enlightened policy which has been followed by the Agricultural Department of the Transvaal, in placing specimens of various imported breeds in the Agricultural Shows, which are becoming more and more popular throughout the Province. The most common of foreign breeds are, in the order of their numbers, as follows: Friesland, Shorthorn, Ayrshire, Devon, Hereford, and one or two other breeds such as Jerseys, Polled Angus, Sussex, &c. The Africander cattle, indigenous to the country, are largely owned by the Boers, and the recent attempts to secure purity of breed have done much to increase the popularity of this useful class of animal. There is still a very common tendency among the less progressive farmers to resort to the use of nondescript sires, a practice which cannot be too strongly deprecated. At present it is largely a matter of conjecture as to the breeds which are most suitable for our widely varying district conditions, and experiments should be continued in order to assist the stock farmers of the country. It will be seen from the list of breeds which are given above that the farmers are bent on producing those articles such as milk, butter, cheese and meat, which are so largely in demand throughout the Province.

A question which deserves the most careful consideration at the present juncture is whether expensive dairies can be made to pay while the quality of our cattle remains, on the whole, what it is to-day. It would appear that to answer this question in the affirmative would require an amount of faith above the ordinary, especially in view of the fate which has befallen every co-operative dairy which has so far been established in the Transvaal. Many of those who have been once bitten are too shy to again venture their money in such undertakings.

Another question which needs the most careful consideration is that of the position of the respectable white dairyman over against his unprincipled competitor for the milk trade of our larger towns. Individual witnesses will be able to throw considerable light on this problem. Suffice it to say here that the methods which are adopted by those who are fast capturing the fresh milk trade of our towns are such as would serve to land those who practise them in prison in ordinary civilised countries of the world. Not only do such things happen, but there is also the terrible danger which is daily being run, that the milk of tuberculous cows may be supplied to those who are predisposed to lung troubles. This applies especially to mining areas. Against these practices and these dangers the honest dairyman is absolutely powerless. It is true that there are reports to the effect that steps are now being taken to deal with tuberculosis, and to pay compensation for animals which it is found necessary to destroy, but the prospect is not encouraging when an animal worth 35*l*. to the owner is liable to bring only 5*l*. as compensation. It is

greatly to be desired that the law at present being dealt with by the Provincial Council will make provision whereby this matter will be placed on a satisfactory basis. It will be shown later on in this statement that the removal of stock inspectors from our borders has resulted in the increase of the spread of contagious stock diseases.

Stock Diseases.

Returning to the question of cattle in general, it is sufficient to mention such diseases as gall sickness, redwater, East Coast fever, and last, but by no means least, the disease which the Boers have named lam-galziekte. The three first-named are sufficiently well known, but the last-named is a disease which is gaining ground in certain districts of the Transvaal and the Orange Free State at an alarming rate. It appears to consist of a combination of gall sickness and paralysis, the cause of which appears, up to the present, to remain undiscovered. It has been responsible for the deaths of thousands of cattle, and so far no preventive or remedy has been found. That a sickness of this nature demands the immediate attention of the authorities in regard to the making of experiments is a fact too obvious to need demonstration. Dr. Theiler has, within the past few days, met the farmers of the districts most concerned, and is now engaged in such investigation work as, it is hoped, will result in the discovery of the cause of the disease and its prevention in the future.

Horses.

As is well known, the class of horse usually bred in the Transvaal is that which is known under the name of the "Boer paard"—a most useful horse for riding purposes, capable of carrying heavy weights, full of endurance, and for the purpose of pulling in the ordinary Cape cart of the country probably unequalled by any other horse of his size; he is still not an animal which would find a ready market outside the circle of those who know his actual worth. In this direction there is a great need for the giving of advice to many of those who are engaged in the breeding of horses. The Transvaal Agricultural Union hopes, in conjunction with the Imperial Remount Department, to be in a position to hold meetings of horse-breeders in various centres, with a view to giving information to those who propose to avail themselves of a more profitable market than that for which they now cater. It is a pleasure to be able to state that many of the leading farmers of the Province are bestirring themselves in the direction of improving the quality and the size of their stock. This movement is one which has received a considerable impetus from the mining men of Johannesburg, who, in many instances, have interested themselves most keenly in farming matters, and who have introduced many most valuable sires into the country. The Agricultural Department has also assisted in this direction, but there seems to be a very general feeling that the whole question has not been studied with sufficient care, and that many useless sires have been introduced. It is absolutely necessary that steps should be taken for the production of only such animals as will find a ready sale at paying prices, and to this end investigations should be set on foot so as to discover the best course to follow for the securing of that end. There is also the question of the class of mare which should be employed for the production of a saleable remount. Through the influence of the General Officer Commanding, Lord Methuen, an arrangement was entered into with the Remount Department by our Union by means of which cast military mares, free from hereditary disease, and considered suitable for breeding remounts, could be distributed to horse-breeders interested in this matter. The price was fixed at 20*l.* each, but, at the last distribution, a few months ago, another system was adopted, whereby the prices are fixed for individual animals, and vary from 18*l.* to 26*l.* each. It is questionable whether this method will not defeat the object in view. Some farmers who have had such mares have found them breed readily, especially where artificial insemination has been resorted to. It is quite certain that the military authorities will find no other country where a more hardy horse can be produced, and, with Dr. Theiler's triumph over the long-dreaded disease known as horse-sickness, the way is open for a considerable advance on past accomplishments.

Heavier Horses required.

It is very probable that a heavier class of horse will, within the near future, become a valuable economic factor in the life of the farm, particularly as smaller holdings become more common. It stands to reason that, with modern methods of cultivation, the soil of the cultivated portions of the country will attain to such a state of tilth that it will no longer pay to use a long span of oxen, on comparatively small areas of land, in the cultivation of crops, and that a single horse of powerful build will be employed with a view both to neatness and despatch. It is also certain that many districts which have up to the present remained unused by horse-breeders will in the immediate future be employed for the raising of such stock, seeing that horse-sickness need no longer be feared. As many of these districts are largely impregnated with lime, their value will become greater for the production of a class of animal with plenty of strong and closely knit bone. In the meantime it behoves the Government, especially with a view to the establishment of a defence force in South Africa, to use every endeavour to assist this important industry.

Sheep.

Sheep have increased most rapidly in numbers since the close of the war, and this may be regarded as a proof of the wonderful recuperative properties of the Transvaal. It may safely be asserted that not 75 per cent. of the owners of sheep take even ordinary care of their flocks. Generally speaking, they are a mixture of Cape, Bastard, Persian, and Merino breeds, except on the high veld, where several flocks of pure Merinoes may be seen. It is a most common thing to find goats of various kinds mixed with the sheep, and few farmers possess the necessary knowledge to enable them to select, from their flocks, the ewes which, crossed with suitable rams, would tend to improve their quality. There are very few of the ordinary European breeds which are found in England and the Australian Colonies, such as Shropshires, Southdowns, Leicesters, &c., to be found in the Transvaal. This means that even the best sheep farmers are devoting their attention exclusively to the growing of wool, for which the merino is famous, and that but little is done to provide a good quality of mutton, even for the local markets. The average value of the wool is a low one, but there are many outstanding exceptions where the quality is such as to produce much higher prices. A very large quantity of mutton is annually imported into the Transvaal, all of which should, within a reasonable time, be locally produced, and of a quality much superior to that which is now inflicted on the long-suffering consumer. The prices paid by the butchers, compared with the prices paid by the consumers, appear to leave a considerable margin in favour of the former class and the cold storage companies who supply them with frozen mutton; perhaps the farmers will awake to the possibilities which exist for co-operation among themselves, in order to secure better prices for their livestock. Much has been done by the sheep experts who have been employed by the late Government of the Transvaal in the direction of assisting farmers to work upon modern lines, but if the services of the Transvaal experts are to be divided among the four Provinces of the Union, it does not appear that their opportunities for the continuation of their useful work will be very great. It is only as the ordinary farmer is brought to see that his success in sheep farming, as in everything else, depends upon the intelligence, energy, and personal effort which he puts into his work, that we can hope to see any general improvements in the conditions which now prevail.

Pretoria, 1 *April* 1914.] Messrs. A. G. Robertson, W. A. Pilkington, F. R. N. Findlay, Major R. Doyle, D.S.O., J. L. Van Heerden, and T. Kleinenberg. [*Natural Resources: Animal and Agricultural Produce.*

Pigs.

The pig is, unfortunately, generally regarded as a despised adjunct of the ordinary farm, while we continue to import large quantities of hams and bacon into the Transvaal from foreign countries. In 1909, the latest date for which separate figures are available, the value of bacon, hams, and lard imported into this country was 117,324*l*., and there is no apparent reason to lead us to suppose that later years have seen any diminution in this amount. This a most regrettable fact, when it is remembered that every penny of this large amount might have been spent in purchasing local products. Several imported breeds of pigs have been introduced, and some of the progressive farmers are devoting their attention to the curing of hams and bacon. It does seem strange that, with the high prices commanded by these commodities, we should ship our mealies to Europe instead of sending some of them to market on four legs, and at a greater profit. There is another point in favour of the pig, and that is that he is much less liable to disease than most other varieties of livestock found in the Transvaal. It may be interesting to note that the value of the bacon and hams exported from the United States of America to other countries amounts to no less a sum than 86,000,000*l*. annually. Perhaps the pig may yet come by his own in the Transvaal.

Poultry.

Some improvement has taken place, in recent years, in connection with this branch of the farming industry, and many of the most valuable breeds have been introduced into the country. Unfortunately, these are mainly kept by fanciers in or near towns and by only a few of the most progressive farmers. Yet it would appear that there is a possibility of making a considerable profit out of poultry, if the business were intelligently undertaken.

Maize.

Maize ranks highest in importance among the varieties of grain which are produced in this Province, and is grown to a greater or less extent by nearly every farmer in the country. It is certain that the conditions of soil and climate in many parts of the Transvaal lend themselves to the production of a quality of maize which cannot be excelled in any other part of the world. The methods which are generally adopted leave much to be desired, and it will require a long time to convince the average farmer that the success of his crop depends on everything which is done from the breaking of the soil to the harvesting of the grain. To roughly plough an area of ground, throw around an uncertain quantity of seed in the most haphazard manner, to harrow such seed into the soil, and trust to Providence for a heavy crop, is a method which is falling more and more into disuse; but there is still far too much of this happy-go-lucky style of doing things. To sow seed which has been taken from the cob, irrespective of its quality or its trueness to type, and to expect from a piece of land which is literally a forest of weeds a paying crop, is to demand too much from nature, even in the Transvaal. Careful and thorough preparation of the soil, sowing by means of drills, at distances which will admit of constant and thorough cultivation, and the keeping of the soil free from weeds, are some of the methods which must be employed to ensure a paying crop. The use of suitable fertilisers will also have to be resorted to on an ever-increasing scale, as the qualities of the soils deteriorate. We have been flattering ourselves on the fact that we exported some 730,000 bags of maize to the European markets, but it might have been worth our while to have inquired whether we could not have found a market, equally good, and probably better, in South Africa itself. Large quantities of this maize would have been welcomed in the Cape, provided we had given the same facilities by rail to a sister Province as we are giving to the ports of export. A further large quantity might have been employed, as we have already stated, in fattening livestock, and the benefit of the resultant manure, no slight consideration, might have remained with us. Much more might have been used as human food if the railway had endeavoured to encourage the product of local factories which deal with this grain. The present season has been a most unfortunate one for maize-growers, though in some favoured parts the crops are nearly up to the usual average. It is noticeable that the best crops are those of men who have adopted the modern methods above described. We are informed by the Director of Agriculture for the Portuguese Province of Mozambique that, from seed secured through the Agricultural Union of the Transvaal, of last season's crop, the average yield has been at the rate of 15 bags per acre. Probably the average yield in the Transvaal for the present season will not be more than a third of that quantity. There are many exceptions, however, and many growers realise 30 bags per morgen, or 15 bags per acre. It is very regrettable that careless handling of the crop and of the harvested grain should tend to cause dealers to look with suspicion on Transvaal grain. Nondescript maize, accompanied by lack of proper grading, will not take long to inflict a very serious injury upon our chances of capturing the valuable markets which are now open to us, and it is urgently necessary that stringent measures should be adopted in order to prevent careless or unscrupulous growers or traders from inflicting permanent damage on what promises to become a most important industry.

Kaffir Corn.

Kaffir corn, a species of sorghum, is also largely grown, chiefly by the native population, and, while it may not possess the feeding value of sound maize, it is still a most useful grain. It appears likely, however, that it will not find a large market outside of South Africa itself, though there has lately arisen a small demand for the white variety for the purpose of poultry feeding.

Wheat.

Wheat is comparatively little grown, and the imports of flour and meal appear to be on the increase. In 1906 the value of these imported articles was 448,030*l*., while in 1909 it had increased to a sum of 502,796*l*. This is, of course, irrespective of the whole wheat which is imported, the quantity of which cannot be arrived at owing to the fact that the statistical entry relates to "wheat and other grain." While in the Cape the wheat crop has the advantage of winter rains, the crops in the Transvaal during the same period must be grown under irrigation. The summer crops suffer seriously from rust, and, so far, no satisfactory rust-resisting variety has been introduced, though something has been done in this direction. As regards the quality of the wheat produced in the Province, it may be described as good, and with the introduction of newer varieties, and the practice of dry land cultivation, it is hoped that we shall soon be able to supply all local demands. Under irrigation the cost of producing wheat is high, probably amounting to as much as 10*s*. per bag, and when the railway rates are added thereto it is not probable that there will be any immediate reduction in the price of "the staff of life" such as will affect the cost of living. It is estimated that the average yield per acre on dry and irrigated lands is nine bags per acre. The Boers largely use Boermeal for home consumption, and in this they show their wisdom, for a recent scientific writer has compared the man who uses white flour to one who, having bought a suit of clothes, cuts off and saves the buttons, while he throws the rest of the suit away. It is highly probable that, as land increases in value, areas which are waterlogged will be drained and thus rendered suitable for wheat-growing.

Oats.

Oats are chiefly grown as a forage crop, and the grain is frequently of an inferior quality. It is questionable whether, as a dry forage crop, it is not a wasteful food, and whether it will not remain so until the average quality has been considerably improved. Among the varieties chiefly grown are

Boer, River Plate, New Zealand, Egyptian, and Algerian, but it is a rare thing to find a bag of grain which equals the European standard of weight per bushel. The grain is never milled in the Transvaal, even for the feeding of horses, or, if this does happen, it is very rarely. The average yield per acre is said to be some 1,200 bundles, of 3 lbs. weight. Many farmers are beginning to realise the value of a winter crop of oats as pasture for their small stock, and they find that after having run sheep on such a crop they still secure a good return of grain and dry forage. It appears that there is no reason why the Transvaal should fail to produce all that it requires of this crop.

Barley.

Barley is largely used for brewing in South Africa but the brewery owners complain that they cannot buy large quantities of locally-grown grain suitable for their purposes. This statement should be taken with the proverbial grain of salt, and the reason for making it might be sought in the fact that there are few malting plants to be found in South Africa. Attempts have been made to induce farmers to grow a suitable grain, and the "Chevalier" variety has been found to answer admirably, but the guaranteed higher prices therefor have not, it is said, always been forthcoming. The crop is largely grown as green fodder for dairy cattle, which have to be thus fed through the winter months, and it always commands a respectable price. Summer rains militate very frequently against the favourable growth of this grain, and loss is thereby caused to the farmer.

Other Crops.

Among other forage crops which are grown are such as lucerne, millet, teff grass, tall fescue, burnet, paspalum, and clover and ryegrass. The three first named are the most popular, and they are of considerable value. There are farms with as much as 2,000 acres of these imported forage crops. But little of the grass of the veld is made into hay, though much of it is of excellent quality, and it is probable that its feeding value would be considerably increased by such cutting. Cut and cured at the right time, it makes a most excellent stand-by for the winter. The majority of the farmers seem to prefer the burning of the veld grass to the making of hay therefrom, and some excuse is to be offered for them because of the difficulty of cutting on stony and hilly ground. Burning, it is claimed, is also a valuable method of destroying ticks, though it was commonly practised before even the most advanced farmer had dreamed that a tick could be a carrier of disease. The difficulties connected with the trekking of stock to the winter veld are now becoming so great that it appears likely that the necessity will shortly arise for keeping the bulk of stock on the farms all the year round. This is an important question, and due measures should be adopted to assist the stock farmers to continue this practice as long as possible.

Root Crops.

The cultivation of root crops, such as mangel wurzel, kohl rabi, and turnips, is rapidly increasing, and many farmers have succeeded in raising excellent crops. It is only right, however, to say that, for some reason or other, many of these crops have proved to be an entire failure.

Soya Beans.

Soya beans have been introduced into the Transvaal in recent years, and judging from the results at Skinner's Court, near Pretoria, where seven bags were produced from an acre of poor and unfertilised land, there is a likelihood that this crop will prove to be a valuable one. Lever Brothers are offering from 10*s.* 3*d.* to 10*s.* 9*d.* per bag of 200 lbs. at their soap works in Durban. Owing to the fact that the railway charges on 200 lbs. of soya beans from Pretoria to Durban amounts to 3*s.* 3*d.*, there appears to be very little encouragement for the inland grower, and he must remain at the mercy of local consumers in the Transvaal. It is said that there are a number of farmers who are prepared to undertake the growing of this crop, and means should be provided whereby they could secure reliable seed at the lowest rates, so as to commence at once. It would also be necessary to lower railway rates, so as to permit of the seed finding a payable South African market.

Linseed.

Linseed is a payable crop, and it could also be disposed of to the aforementioned firm if transport charges were reduced. Large quantities have been grown during the past season on a Standerton farm, and there is every probability that, given favourable conditions, a valuable industry might be established.

Tobacco.

Tobacco is a crop which is coming into increasing favour among farmers possessed of suitable ground for its cultivation. It is not necessary to enlarge on the prospects of this class of farming, as a Government Commission has already collected evidence on the subject. Suffice it to say that in the Rustenberg district alone excellent profits are being made by those engaged in growing the crop, especially where modern methods are in vogue. There appears to be no immediate likelihood of a decrease of the amount of tobacco which is annually consumed throughout the world, nor of any serious reduction in its market value, as men are always willing to pay for their luxuries. Mr. Scherffius, the Government tobacco expert, has succeeded in growing tobacco which has been valued by dealers at no less than 5*s.* per pound in Pretoria.

Vegetables.

The growing of vegetables is largely in the hands of Italians, Portuguese, Greeks, Chinese, and others, while only a very small number of English or Dutch are employed in this way. When the last-named enter into this class of farming they usually associate fruit-growing therewith. This is probably because they frequently own the land on which they are operating, while the foreign element occupy only the position of leaseholders. It is very rare indeed to find the quality of market garden produce equal to that which is common in Europe, while the prices paid by the consumer are frequently very much higher. This must not be taken to mean that the prices obtained by the growers are always of a satisfactory character. They are frequently just the reverse. The higher prices demanded for the making of a profit may be attributed to the higher costs of production and to the heavy cost of transport to the market.

General.

There can be no doubt as to the necessity which generally exists for the remodelling of farming methods in the Transvaal, and the farmer must learn the value of systematic cultivation, and of the application of suitable manures to his lands. Dry-farming, as it is commonly designated, will, in all probability, play a very important part in the development of the country, though such a term is somewhat out of place in a country where the average rainfall is roughly some 30 inches per annum.

Drawbacks.

It now becomes necessary to deal with some of the drawbacks to successful farming as they exist in the Transvaal, and in doing this it may prove advantageous to recapitulate the various headings of livestock and produce as they have already been given in this statement, mentioning, in passing, such hindrances to success as may apply to each class.

Cattle.

As is well known to the Commission, the ravages of East Coast fever have been of such a nature as to give a very serious set back to the cattle industry, and the least which the progressive farmer can expect

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from the Government is that the laws which have been framed for the purpose of eradicating this disease should be impartially and strictly carried into effect. There are various other forms of local diseases among cattle, and the farmers of the Province are greatly indebted to Dr. Theiler and to the capable staff of the Veterinary Department for the excellent work which they have accomplished during the past few years. The enforcement of the provisions of the recently adopted Stock Diseases Bill cannot fail to have a very beneficial effect on the prosperity of the cattle industry.

Horses.

The chief drawback to horse-breeding, in many parts of the Transvaal, has been the prevalence of horse-sickness, but the farmer is again indebted to the Bacteriological Department for the discovery of means whereby this dreaded disease may be successfully combated. The quality of many of the sires and dams employed leaves much to be desired, and it is highly necessary that the farmer should understand that it will not pay him to produce a class of horse which, no matter how closely it may approximate to his standard of excellence, still fails to meet the requirements of the great majority of buyers. Much might be done by the establishment of a horse breeders' association, consisting of the best horse breeders, who would carefully consider the whole question, and frame standards of excellence which would meet the requirements of those who are most likely to become large purchasers of such stock. It would be their duty, at the same time, to compile standards for the sires and dams likely to produce the class of animal most in demand, and which would command the highest price. In this direction, much valuable assistance would be cheerfully given by the Military Remount Department, and there is no doubt that that Department would annually purchase large numbers of suitable horses, at good prices, for the British Army.

Sheep.

The chief drawback to the sheep-farming industry of the Transvaal, as in other parts of South Africa, is the prevalence of scab. There is also much room for improvement of the general quality of the sheep which are being kept, and for the handling of the wool which they produce. Many thousands of pounds are annually lost to the sheep-farmers of this Province through the careless methods which are in vogue. The most common forms of disease have been rendered preventible or curable through the researches of the Government bacteriologist, and with the due carrying out of the provisions of the Stock Diseases Bill, the fencing of farms, and the cultivation of crops which will serve to provide food for the winter months for the best of the flocks, the prosperity of this branch of farming will be secured.

Pigs and Poultry.

Nothing more need be said in respect of pigs and poultry, which usually thrive throughout the Province, and which may, with ordinary care, form a very valuable adjunct to the ordinary farm.

The ill-treatment of livestock on the railways is a question which is of great importance to stock breeders, and an investigation should be made with a view to putting an end to the conditions now prevailing.

Maize.

As has already been stated, the average yield per acre of maize is about five bags. That of Natal is said to be six bags, while in Rhodesia the average is said to reach seven bags per acre. The average yield in the maize belt of the United States of America has been, for some years past, about eight bags to the acre, and this average could be easily reached in the Transvaal if only the most ordinary care were taken in connection with the cultivation of this crop. There is no country in the world which can excel the Transvaal in the production of this exceedingly valuable crop of grain. We have the advantage over America of being able to entirely dispense with the kiln drying of this grain. It may be remarked that the farmers of Rhodesia, who are but few in number, and who reside in an area which, just now, is being boomed for settlement purposes, are, many of them, most progressive, and this may account for the higher average of their maize yield. From the latest available statistics of the yields recorded in America, where the experiments were conducted on the most modern lines, and where everything possible was done in order to secure an exceptional crop, it appears that the average, in three separate areas, was 88 bushels to the acre, or between 29 and 30 bags. This has been equalled in various parts of South Africa, under similar conditions, and at Potchefstroom the yield has been as high as 84 bushels to the acre, at the experimental farm.

This, of course, means fertilisation and thorough cultivation. In this Province the cost of fertilisers, often of questionable quality, is excessive, and this is largely due to the railway rates which are in vogue. When it is remembered that imported fertilisers are sown at rates varying from 150 lbs. per acre upwards, it will be readily seen that the high costs of transport become a most serious factor in preventing farming from being carried on at a profit. American railway owners reckon that for every ton of fertilisers which they carry free of charge they are called on by the farmer to transport 50 tons of grain to the market. The Transvaal farmer is still waiting to learn why a railway axiom which prevails in America is regarded as a fable in the Transvaal. It is certain that if maize-growing is to be successfully practised in this Province we must make a reduction on the carriage of such fertilisers as are daily becoming more and more of a necessity to the farmer, and also that we must have Government guarantees that such fertilisers are, in all cases, of the quality represented. There are ingredients which, so far as is at present known, cannot be locally produced, and all such component parts of necessary fertilisers should be carried at a rate such as that which is suggested for local products. It is also self-evident that to tax such articles as cannot be locally produced is to take money out of one pocket to place it in another. There is also a great need for the giving of increased attention to the instruction of the farmer by means of Government experts, so that he may be able to appreciate and adopt the latest methods of handling this crop. The admirable work done by Mr. Burtt Davy and his staff, in this particular direction, cannot be overestimated in connection with this important staple crop.

Wheat, Oats, and Barley.

Complaints have been made by millers in the Transvaal that a large percentage of the wheat grown in that Province is not up to standard. This may have been so in individual cases, but there is evidence to show that such varieties as Red Fyfe, &c., of the highest quality can be produced there. There is also ample proof that wheat can be produced at a profit, and what is needed is that the farmer should be kept up-to-date in respect of the varieties which he should grow, and of the methods which he should adopt in regard to cultivation. The remarks made in the previous paragraph, in respect to the cost of transporting the grain and the necessary fertilisers, apply with equal force to these crops. A calculation has been made that, out of the total cost of administering a modern farm in the Transvaal, no less than 12 per cent. consists of railway charges. Surely this should be thought—provoking.

Vegetables.

Most vegetables, such as sweet potatoes, green beans, cucumbers, cabbages, peas, &c., find their way to Johannesburg or Pretoria, and they sometimes realise fair prices, but, owing to the keen competition which has lately sprung up, they often barely pay the expenses of growing and transport by rail.

Potato-growers in the low veld cannot compete successfully against their compeers in the high veld districts, nor can grain be made to pay under the prevailing conditions. Ground-nuts would pay if labour were sufficiently plentiful and cheap, and if transport rates were lowered. A farmer in the Barberton district states that he can secure his fertilisers from Durban *viâ* Delagoa Bay for 13*s*. 5*d*. per ton of 2,000 lbs. less than it would cost him to rail direct from Durban to Barberton. Having had his soil analysed by the Government chemist, he finds that he requires certain ingredients, mixed in certain proportions. He therefore has his manures compounded at Durban, and they consist partly of imported and partly of South African products, in the ratio of two parts of imported to three parts of South African products. If this compound could be carried at South African produce rates by rail he would save no less than 1*l*. 1*s*. 4*d*. per ton. To use this correspondent's own words: "I am taxed by the "Railway Administration at the rate of 1*l*. 1*s*. 4*d*. "per ton for having my fertilisers mixed within the "Union." He further suggests that a Customs duty be imposed on imported fertilisers at the coast ports, and that railway rates to the inland Provinces be lowered, so that our brother farmers in the much-favoured coastal areas would have to contribute their share to the revenue of the Union, in so far as these necessaries of the farmer are concerned. This course, he says, "would leave a little of the cream on the Transvaal milk." While on this subject it may be of interest to point out that from available figures it appears that the total value of imported fertilisers brought into the Union during six months of 1910 was 91,841*l*., while the weight was 67,215,681 lbs.

Dipping Stock.

The value of dipping stock, for the prevention of disease, has been proved, and it is hoped that everything possible will be done to ensure that the system becomes general throughout the Union. It is gratifying to learn that materials for the purpose of constructing dipping tanks will be carried at special rates by the railways, and that local cement will be supplied at specially low rates for this purpose by the Pretoria Portland Cement Company. Their quotation is 8*s*. per bag of 188 lbs., f.o.r., Pretoria, and the firm is also intending to construct blocks of cement for the type of dip recommended by the Agricultural Department. It is very desirable that where local authorities wish to erect such dips on public lands they should be assisted to do so, so that the owners of cattle in any particular community could be induced to dip, and thus remove the danger so commonly incurred in cases where live-stock graze on common lands.

It is also necessary that steps should be immediately taken in respect of investigating such diseases as Lam-galziekte, Stijf-ziekte, &c., &c., so that the threatened spread thereof may be curtailed, and the diseases eventually eradicated.

Scab has proved to be a serious drawback to the successful carrying on of sheep-farming, and stringent measures should be enforced for the prevention of the spread of this disease.

One writer complains that upon a railway journey he has found it impossible to secure Cape brandy, and that it was stated that it could not be supplied. When the catering was in other hands, it was frequently a matter of comment that the supply of South African articles was made a feature of, and that they were always served in such a manner as to satisfy the travelling public. Surely it should be the duty of such a department to assist in the sale of articles of local origin to its customers, especially if the quality be equal to that of the imported article.

Hindrances to Farmers.

It is considered that the following matters should be carefully dealt with, as it is believed that they militate very seriously against the successful development of farming within the Province:—

(1) The introduction of pests, injuriously affecting the livestock and the plant life of this country.

(2) The necessity of securing that none but pure seeds, true to type, be introduced into the Province, and to make the selling of impure seeds, and those containing the seeds of noxious weeds, a criminal offence.

(3) The necessity for the eradication of noxious weeds, especially in areas under the control of municipalities and other public bodies, as there is ample evidence to prove that these weeds are increasing in varieties as well as in numbers. Our railways are among the chief offenders, as may be seen by any observant traveller on our railway system.

(4) The burning of grass and the denudation of the soil, which is thereby assisted, is a serious question, especially in a country whose climatic conditions are such as prevail here. This is also true of the common practice of denuding the country of its indigenous timber without making the least attempt to replace it even by imported varieties of trees which would serve to supply useful timber for many purposes.

(5) The question of the supply of a sufficient number of cheap labourers for farming purposes is of the greatest importance, and we venture to lay before your Commission for favourable consideration certain resolutions passed by the last annual conference of the Transvaal Agricultural Union. These resolutions are attached hereto.*

(6) It appears desirable that a change should be made in our educational system, whereby subjects which would tend to create an interest in country life generally, and especially in agriculture, might find a place on the curriculum of rural schools.

(7) The question of the damage caused by hail and by the visitations of locust swarms will be one in which the Commission will certainly be interested, and they should not be overlooked in connection with the drawbacks in farming in the Transvaal.

5600. **(Sir Alfred Bateman.)** Was this prepared for us?—**(Mr. Robertson.)** Not specially. It was prepared for another Commission, and yesterday, at the suggestion I think of one of the members of the Commission——

5601. No; I beg your pardon. I think it was stated at your meeting a day or two ago that we seemed to have had some agricultural evidence that you did not quite agree with, and you represented that, as you were here in connection with the congress of the Agricultural Union, you would rather like an opportunity of being heard before the Commission; we therefore communicated with you, and arranged for you to attend and lay your views before us?—Yes. That is so. That statement you have was prepared some little time ago. Well, we shall be glad to reply to any questions that the Commission may like to ask, and also perhaps to controvert some of the evidence which has been put before the Commission elsewhere.

5602. Yes. Will you please make your statement? What is it you specially wish to bring before us?—First in regard to cattle and dairying. Major Doyle will speak on that subject.

5603. What have you to say, Major Doyle?—**(Major Doyle.)** You will see that we have put forward a statement in reference to the dairying industry. We have heard that certain evidence was given before you in which it was suggested that centralisation was a good thing for the country, and the elimination of the smaller creameries with a view to keeping up the standard of the product. Well, it is news to us that to eliminate competition is a method of keeping up the standard of any product, and we do not want it to go forth from this country that that is the view of the farmer. We look upon competition in any industry as a healthy thing.

5604. You must remember that that evidence was put before us by the representative of the principal

* Not printed.

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dairying company?—We are glad to hear that you appreciate the point.

5605. Naturally. There are two points of view as regards the central system—the advantages and at the same time the disadvantages of competition in regard to the treatment of dairying products?—Yes. You will no doubt have seen also that as we stand at present our cattle are perhaps not of a very high standard, and the dairying industry here has not progressed to the great extent it has done elsewhere. But one thing I wish to point out is this, that the present prices for dairying products in this country will give us a little time to build up our herds, and at the present moment it is a profitable industry, although our cattle are not of a very high standard, and it will be a still more profitable industry in this country in the future, when we have built up our herds as they should be. The abundant summer rainfall we get in normal years enables us to make ample provision in the way of cattle food in the winter.

5606. Your cattle have been improving very much since the war, have they not?—Very much indeed. The strides that have been made in regard to cattle in this country since the war are enormous.

5607. Is that the case with sheep too?—I am not dealing with sheep; Mr. Robertson will speak on that subject.

5608. Are there any other points?—No. At the moment we mainly wish to emphasise our belief in the future of cattle in this country, and the prospects of the dairying industry in particular, and also to controvert the statement to which I have alluded.

5609. **(Mr. Garnett.)** On the question of the multiplication of creameries, then, we may take it that in your opinion it does not in the least degree militate against the keeping up of a good standard of quality in dairying products?—Of course, there is a limit in that direction.

5610. But you think that within reasonable limits there is fair remuneration, and therefore each creamery should be able to keep up its standard of efficiency in the production of dairy produce, and that a certain amount of competition will be an advantage rather than a disadvantage to the industry's development?—That is our view.

5611. I mean you have no fear of the general standard of excellence being pulled down by a reasonable and proper development in the number of creameries?—We think that a healthy competition will always tend to raise the standard of quality.

5612. **(Sir Alfred Bateman.)** You believe in competition rather than in monopoly?—Exactly. And there is another point in connection with that. Centralisation means to a certain extent centralisation in more ways than one. It means greater distances for the cream to travel, and everybody knows that the sooner dairy produce is dealt with the better the result.

5613. **(Mr. Sinclair.)** Have you a system of grading butter?—Not at the present moment. We are not dealing with any export butter, although that is being inaugurated.

5614. That itself would fix a standard and get rid of the suggestion, if it was made, at Nel's Rust, would it not?—Necessarily. Before you could enter into competition with outside countries you would have to have a standard.

5615. Did you see the distance it was stated that cream could be carried without detriment—long distances—I think well up to 80 miles apart from the rail?—Do you mean 100 miles by vehicle?

5616. By some kind of vehicle, apart from the rail; do you think it is possible that cream can be carried long distances without deteriorating?—Yes, long distances, but not 80 miles. I would say an ordinary distance up to 20 miles by ordinary means. But I question whether it would pay to transport cream 20 miles to the railway.

5617. **(Sir Alfred Bateman.)** Is there any other point in that connection, Major Doyle?—I would only like to add that what I said in regard to distance must, of course, be governed by climatic conditions and the means of transit. In a cooler part of the country dairy products will, of course, travel further than in a hot part, and if the method of transport was by motor car 20 miles and 100 miles would be almost the same thing.

5618. **(Sir Alfred Bateman to Mr. Van Heerden.)** What is the point that you wish to urge?—In regard to the subject of gall lamziekte. In the early days in this country we had lung sickness and it practically cleared the country of stock, but to-day lung-sickness is not at all feared. After that we got this rinderpest, but I must acknowledge that even that is now not feared; it is being conquered by the excellent work of our veterinary surgeons. Since that time we have had East Coast fever. That was practically looked upon by farmers as a hopeless matter, for which we were not going to find any remedy. But in many parts, by means of dipping, East Coast fever is extinguished to-day. Now we have another trouble, and that is gall lamziekte, but Dr. Theiler is investigating the matter, and will no doubt find a solution.

5619. He has not found one yet?—No solution has been found for this disease, but for all the others remedies have been discovered, and we believe that this will be the case with gall lamziekte too.

5620. I suppose Dr. Theiler is in communication with the Home Government and the Board of Agriculture in London to see what help they can give him as to what has been found in other countries. Or do you consider that this is entirely peculiar to this country?—Dr. Theiler, being acquainted with circumstances and conditions in this country, we look to him as the man who is going to solve this problem for us.

5621. As regards diseases generally, you have improved matters very considerably in the last few years, have you not, by dipping and in other ways?—Yes, particularly with East Coast fever. But this gall lamziekte appears to be travelling from one part of the Union to the other.

5622. Are the losses very great from this cause?—Yes, the losses are very severe in many parts of the country, and it appears to be extending.

5623. You only represent the Transvaal, I understand?—Yes.

5624. You take in the whole of the Transvaal—the societies which embrace the whole Transvaal?—Yes.

5625. And that is a pretty large country. Are the conditions very much the same all over?—No, the conditions vary very much. We find that the sickness is more prevalent in the dolomite formation.

5626. There you get pure water, do you not?—There is no fault with the water—it is all fine spring water.

5627. Is that on the high veldt?—Yes, it is fairly high veldt, although about 1,000 feet lower than Johannesburg.

5628. What is your point, Mr. Pilkington?—I would like to observe that there is a certain relation between the climatic conditions and the drought and this lamziekte. One theory again is that it is connected with certain deficiencies in the food which is caused by drought. In wet years we are not much troubled with it. We are passing through a dry period at the present time, and so it is very prevalent. I think, sir, that the remedy for gall lamziekte will be closer settlement. It is most prevalent among dairy cattle, that is, cows which are rearing calves. It points to a certain deficiency of phosphates in the food, because bone meal has to a certain extent proved to be a preventive. When we get closer settlement and animals are looked after something like they are in the old country I think the majority of these diseases will die a natural death. **(Mr. Van Heerden.)** I go further, and say that in reference to closer settlement, that would be a remedy for grass burning, and to my mind—I may be wrong, of course—but I certainly believe that grass burning has to a very considerable extent been responsible for gall lamziekte. As this gentleman has said, it is due to deficiencies in feeding, and there is no doubt about it that if you look into this matter closely you will find that certain kinds of grass possessing certain qualities are disappearing altogether.

5629. By the burning?—Yes, and the drought on top of it.

5630. And you look upon it rather as a dietetic question—a matter of feeding?—Yes, I speak largely from my experience.

5631. Have you anything further to add about these diseases, Mr. Van Heerden?—No.

(Mr. A. G. Robertson.) The next subject is about horses and sheep. I do not think I have any wish to controvert any statement made to the Commission as far as I know about this subject. We have shortly put the position in regard to horses and sheep in our statement. I may perhaps add that the sheep industry is improving very very fast in South Africa of late years, not only in regard to the quality, but in regard to the number of sheep carried per acre; that has largely increased, and there is a far greater number of sheep in the Union to-day than a few years ago. I am sorry I have not got the numbers, but the Commission will get those particulars from the Sheep Division.

5632. I am sorry to say that your statistics are not as perfect as they might be?—That is true, and I hope the Commission will make recommendations on that point.

5633. We shall probably do so.—The farmers would be delighted so that we should know where we are. We find that this country is particularly suited for growing good sheep. Animals imported from Australia do very well in this country. Take the Tasmanian sheep, for instance; they come here undersized and they do excellently in this country, so much so that we find that the progeny grow into bigger carcases, which is very encouraging for introducing this particular sheep from Tasmania. Also sheep from the mainland of Australia do remarkably well and a number of importations are yearly taking place from Australia. We find that not only is the production of wool increasing but it is increasing in value owing to the better quality we are producing.

5634. Do you grow your sheep for the wool or for the mutton?—There are large tracts of country in South Africa—not so much in the Transvaal—where sheep can be grown profitably for mutton.

5635. But you speak chiefly about the Transvaal, I believe?—Yes. The Transvaal is growing a large number of wool sheep, and as it is fed closely we find that the wool sheep thrives in parts of the country where it was before thought that only mutton sheep would grow, so the wool production is increasing very largely.

5636. But shall you get any nearer to supplying yourselves with mutton: can you be independent of imported meat?—Well, we are increasing now, and it will not be many years before we are in a position of independence as regards importing meat.

5637. You have to think of South Africa?—Yes, I am thinking of South Africa in that connection.

5638. There has been a great increase in sheep in the Transvaal since the war?—Yes, and a great increase in cattle also.

5639. And the best of your sheep you have got from Australia?—Yes.

5640. Is there anything else you would like to say about sheep?—Nothing more about sheep.

(Major Doyle.) I should like to say, Mr. Chairman, in reference to your question as to whether we saw a possibility of meeting our own requirements in the way of mutton, as Mr. Robertson has pointed out we have noted that the carcase of the Australian merino—the progeny of the imported animal—is much bigger in this country than in Australia and there is every prospect not only of supplying our own requirements in a very short time, but I think there is every prospect of going outside.

(Sir Alfred Bateman.) I will ask Mr. Campbell, who comes from Australia, to put a few questions to you about that point.

5641. **(Mr. Campbell.)** Can you tell me what is the reason why in a country which seems so well adapted for the merino sheep, and where you have drawn your principal stud stock from Australia, where the farmers have a fairly heavy clip, that in South Africa, your wool clip does not proportionately amount to anything like the amount of the clip grown in Australia?—**(Mr. Robertson.)** You mean per sheep?

5642. Yes.—Yes, because we have not bred them sufficiently long and on good lines to do that. But the men who have imported sheep from Australia since the war, when our own sheep were practically finished in the Transvaal, and have bred them on sound lines have had excellent results, which compare very favourably with the weight per sheep of any of the Australian stations.

5643. But the Australian strains are not very widely distributed among the total flocks, are they?—No, very very sparsely distributed. After all, the industry in the Transvaal is only ten or twelve years old—since the war.

5644. What is the average clip per sheep for merinos in this country?—I am sorry to say I do not think it is more than 5½ lbs. to 6 lbs.

5645. And among those graziers who have thoroughly covered their flocks with Australian strains, does it go higher?—Oh, undoubtedly, and the quality of the wool has improved also.

5646. As to the quality of the wool, on the general average your merino wool does not bring the price of Australian wool?—No.

5647. Why is that?—Just because of the quality that we have not introduced; but in regard to those who have introduced the quality their prices compare very favourably with that obtained by the general farmer in Australia.

5648. You find there is no deterioration in the fine wool sheep grown in South Africa?—No, not if you keep up your standard by breeding from a good strong robust strain.

5649. And is the breeding of stud sheep carried on extensively in South Africa?—Not sufficiently.

5650. You are still dependent on the Australian strains?—Yes, as is proved by the large importations which take place each year.

5651. Well, what is the reason that there are no considerable breeders of South African strains?—I am talking about the Transvaal. In the first instance, all the sheep were finished during the war and we started with practically nothing. After the war people who wanted to start sheep farming in the Transvaal had to buy whatever they could, and they bought culls from the Cape Colony where there were still some sheep, but unfortunately they brought in a tremendous number of culls from Australia—buying them cheap—because we had no money then and we really built up the sheep industry in the Transvaal from a very inferior strain of sheep which we got after the war. And that is the reason why we are only producing 5½ to 6 lbs. of wool per sheep to-day as a general rule.

5652. These Australian stud sheep that are renowned all over the world for their excellence have been bred by men who own considerable properties—men sufficiently well off to be able to devote money and time and attention to breeding. Have you in South Africa these conditions—the big estates that have principally been responsible for these fine strains of sheep in Australia?—No, not generally.

5653. Well, this is the point I wanted to ask about. Would it not be a payable thing and a good thing to establish stud farms here—Government stud farms at which the breeding of sheep could be carried on?—Unfortunately, I cannot answer yes. We know what Governments are, and the breeding of a sheep or any pure-bred animal depends absolutely on the individual who breeds them. If the Government could ensure getting men at the head of the stud farms who would be there all their lives, devoting their attention to the building up of stock on definite lines, I would answer yes. But our experience is that Governments do not or cannot, for some reason or another, get men of that description, men who make it a life study to establish stud flocks. We attempted some little scheme just after the war when there were no stud sheep in the country; and the Government spent a certain amount of money in building up stud flocks on a stud farm. But it has never prospered, and they went to Australia for the foundation stock. But it has never prospered

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really, and it is only now after twelve years that we see a little bit of improvement in the Government stock, and I believe that the policy will now be discontinued. Now we will have stud breeders—individuals who are at the head of their flocks and who are building them up themselves, and the idea is that the Government should not compete with them any longer.

5654. Has not your difficulty been rather this: in Australia, in addition to having had to breed the flocks, we have had to breed the breeders, and a race of men has grown up there who have the instinct for breeding as well as the time and money to devote to it. Have you tried here to establish stud farms without importing men as well as stock?—In that instance I have quoted the men were imported from Australia.

5655. And they were not successful?—No. But that is no slur on Australia, because we admit that they are very fine breeders, but that is no reason why the same instincts that prevail in Australia should not also prevail here. And we have them as a matter of fact, though not in such sufficient numbers to supply the stud sheep required here at the present time.

5656. And you do not think it would be a feasible proposition to establish State breeding farms?—No, it is too late.

5657. You think there are men here carrying sufficiently large flocks to devote their time and attention to the subject?—Yes, we will supply our own demands very shortly, I think.

5658. But at present it is not being done?—No. **(Major Doyle.)** May I say that the position has been rather a peculiar one in this respect. Mr. Campbell, I understand, has been asking for figures as to the average production of wool in this country per sheep. Now Mr. Robertson has been too modest. He is one of our leading stud breeders, and he has given general figures. Would it be of interest to ask Mr. Robertson what his own average per sheep was for last year?

5659. **(Sir Alfred Bateman.)** Certainly; we shall be very pleased to hear it?—**(Mr. Robertson.)** Well, there are some stud breeders who go up to 10 lbs. per sheep, and get a very good price, but the question is not only what wool you shear off per sheep, but what the return is per sheep per annum. There are lots of sheep in this country which bring up to nine and ten shillings and perhaps even more from some of the best stud breeders.

5660. **(Mr. Campbell.)** From wool alone?—Yes.

5661. **(Mr. Garnett.)** It is a very low average that we have been speaking of then. It refers to all the sheep of all the breeds that are shorn in South Africa?—Yes.

5662. A very mixed lot?—Yes.

5663. But if it were possible to separate the pure merino from the ordinary run of sheep——?—The bastard.

5664. The average clip would be very much higher, would it not?—Yes, very much, both in quality and weight.

5665. You are breeding for wool, I take it?—Yes.

5666. You have done nothing in the way of introducing anything in the way of mutton breeds?—No, but I believe Natal is doing something.

5667. In your opinion, in the Transvaal wool is a better paying proposition than mutton?—Yes.

5668. And it would be more economical to import your mutton and produce wool?—Yes. We have a certain amount of mutton, but not of the highest quality.

5669. **(Mr. Sinclair.)** I suppose that, apart from local requirements for mutton, you have large areas here that call for sheep?—Yes.

5670. So that it must be some time before carcases are extensively sent away. Even when you reach the point of supplying your own people you have much land that you want to stock with sheep?—Yes. There are portions of the Transvaal and outside the Transvaal that are suited for merino sheep which have been stocked with cattle up to now, but owing to these diseases people are giving up cattle and taking to sheep. One disease which used to keep them away from sheep was blue tongue, which carried off a number of sheep in the country. But now we have a vaccine for that and we do not fear it much, so we are going in for wool sheep now in parts where we did not before.

5671. I take it from your evidence that as breeders get rid of the poorer stocks of sheep and approximate to better breeds so will the wool improve?—Yes.

5672. Could you give us the approximate difference in the weight of the fleece between stocks like your own and the average of the poorer class, from which you are moving away?—Four or five pounds per sheep.

5673. That really means about doubling the fleece?—Quite.

5674. Under the improved conditions, I take it the wool-growing industry will be likely to extend?—Yes. That is so. And not only improvement in the weight per fleece, but also the value per fleece, because you are growing a better quality of wool which is a better saleable article.

5675. **(Sir Alfred Bateman.)** Are you satisfied with your rate for the freight of wool home to Europe? It is rather more than Australia pays—three-eighths of a penny as against one farthing per lb.?—Well, generally the farmer is not satisfied with the freight on anything, but I think that on the whole we have not a great deal of cause to grumble about the present freight. I think, of course, that it could be reduced to our advantage. But, of course, I cannot go into the intricacies of what the people who carry it will say on the subject, because it is a question of cost to them.

5676. Yes, and a question of baling?—Quite so. That is one point I would like to mention—the better get-up of the wool. The poor get-up has been the cause of low prices for our wool in the past. The farmers do not get up their wool on the lines they should do. If they would improve they would get higher prices undoubtedly. **(Mr. van Heerden.)** I only want to endorse what Mr. Robertson has said—that as gall lamziekte has carried off a lot of cattle, people have gone in more for sheep and it answers very well. We have been under the impression that sheep would not answer in the Western Transvaal, but now we find they are capable of taking the place of cattle.

5677. You do not get fluke here?—**(Mr. Robertson.)** A negligible quantity.

5678. **(Mr. Garnett.)** It would be too dry?—Well, at present, yes. It is a question of judicious farming. If you have fluky spots on your farm you prevent the sheep going there.

5679. **(Sir Alfred Bateman to Mr. Pilkington.)** You are going to speak as to mealies?—Yes. Mention has been made to this Commission on the subject of pig farming; that it is not carried on in this country very extensively, and the reason given by one witness was that we have no low-lying ground. I do not agree with that. I think the reason is in the first place because it is very easy to over-produce in this country. We have not the factories which give us a regular market. The price of bacon here is 1*s.* 6*d.* to 2*s.* a pound, whereas a consignment of pigs to Johannesburg market to-day might bring as little as 1½*d.* per lb., which does not pay railage. There have been attempts to erect factories, but people here want to get rich quick. The farmer did not immediately produce enough pigs to keep the factory going and consequently it shut down. The farmer, as you know, is everywhere rather slow to move and to change his methods, but once you have got him to change he will keep on. Pig-breeding, I think, is a matter for the small farmer. It pays excellently even at present prices. The average price in Johannesburg is about 4½*d.*; that is, live weight. That is about the top price. But the farms in this country, although they do not compare with the ranches of Australia, are fairly extensive and the majority of farmers are mixed farmers. We do not believe in putting all our eggs in one basket. The majority of us also are short of capital, and although we do produce grain, we market it immediately in order to pay our store bill and settle up. But when a little bit more capital is put into farming that will be the remedy for our present condition, and we will not only produce enough to supply ourselves, but a little bit

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more. And we must have smaller men working smaller areas.

5680. What size area do you think of?—The Transvaal has been said to be a country of samples. Our rainfall varies between 15 inches and 100 inches, and the area which a man ought to farm will depend largely on the district in which he lives. But there are very few parts which do not receive a rainfall equal to that of the county of Kent.

5681. About 20 inches, I suppose?—From 18 to 20, and furthermore we get it all in the growing season.

5682. To set up in a small holding, could a new man do it with 500*l.* or 1,000*l.*?—Well, a new man with 1,000*l.*, provided he will get local experience, will do very well. I did not start with that sum. The majority of us are land poor, if you understand that American expression. I am now farming 5,000 acres; if I had put the same capital into 500 I would be better off to-day. At the same time I would not part with my 5,000. In regard to maize-growing I am living in a district where we get 18 to 20 inches of rain. Previous to the war it was looked upon as a district which would not grow maize economically. Even this year, however, which has been an extra severe year, those of us who have gone in for up-to-date methods of farming will, in those parts where we practised those methods, average a 15-bag crop. The price of land in that locality is anything from 30*s.* per morgen to 2*l.* 10*s.*, so that with the profit you make on your maize you can more than doubly pay for your land the first year. That will give you an idea of what this land can do. Now, sir, I maintain that land like that is crying out for capital and energy and men to work it. The maize growing in this country, as far as I understand—of course, we are liable to say that we do better than anyone else who went before us previous to the broadening of the Agricultural Department—is greatly improving. Formerly there were only two kinds grown—white and yellow. Now the breeds are becoming more specialised. We are importing breeds from America, and we find that not only can we keep up the American standard, but we can improve on it; so much so that Mr. Burtt Davy, who was our great expert in maize, in fixing the standard for shows has increased the standard of excellence as set down for similar shows in America. He has thought it well to do so, which shows that we can produce excellent maize. Then as to the market we have many advantages. In the maize belt in America the planting season is very short. In the best places I know of they only have three weeks to put in their seed, but here we have three months to put the crop in. Then in America the frosts are severe, and you have to be in a hurry to get the crop off the land. That restricts the output—shorter sowing and shorter reaping. In this country we have a longer season and can reap at any time. In winter we are absolutely dry. Once our maize gets ripe we can take our own time to reap it, and that is partly the reason why we can produce maize of such excellent quality. We have not to kiln-dry it. The sun dries it and the labour is less.

5683. Does that account for your getting 2*s.* more for it on the London market?—I think, partly. American maize is kiln-dried and not properly ripe.

5684. What have you to say about what happened two or three years ago when you had to import your own maize from Europe at enhanced prices?—I think that was owing to what was referred to just now—the poor system of statistics. We thought we had a big surplus. Then we had a drought which increased the consumption. The farmers, instead of sending maize to market, had to feed it to the cattle, which did not leave us the surplus we expected.

5685. The consumption is an uncertain quantity then if you get a drought? You have a bigger home consumption?—There is a regular consumption for the mines and the natives, but the consumption at present is an uncertain figure as regards stock.

5686. **(Mr. Garnett.)** Does your Government make any estimate as to the condition of the crops at all from time to time during the year—like the American Government, and like we do at home?—There is nothing on the same scale yet. In time there will be some statistics collected. At present they are very unreliable, and are collected by field cornets in the districts.

5687. Then you have no idea from reliable statistics what the condition of the maize crop is likely to be?—No, except in our own district, more or less.

5688. And hence you fall into the error of over-exporting?—Yes, it happened a couple of years ago. But I may say that the farmer does not control that. It is controlled by the speculator. The farmer in the majority of cases does not export direct, because he would have to put so many tons on shipboard, and even if he had the amount of maize the labour involved in riding it from the farm to the station and loading it would not be economical. You cannot keep the number of hands on all the year, and in this country you have to keep the natives that work for you on regularly. There is little or no casual labour to be had. That is another drawback.

5689. **(Mr. Sinclair.)** You told us that pig-rearing was most suitable for small farmers?—Well, it pays well, but we have so many other things on hand that we have no time for it.

5690. You have so many profitable sources of employment that you are able to pick and choose?—That is so.

5691. I wanted to ask whether there is land available for small farms in this Province?—Well, land can be purchased by the private individual at anything between 15*s.* and 6*l.* a morgen—which is two acres and one-ninth.

5692. Is that land in private hands?—There is very little land in this country which is not.

5693. Is there room for the small outsider coming with a little capital, or is all the land absorbed by your own people?—Of course, extra competition will always send up the price, but any outsider can to-day buy land in the market at the prices I have quoted.

5694. Is the tendency to reduce the size of holdings here?—In my locality, yes. **(Mr. Robertson.)** And all over.

5695. And the fact that you get summer rains and can grow winter food makes small farming profitable, does it not?—It does. At present we do not grow enough winter feed. We rely on the size of our holdings to carry the stock right through.

5696. But as the size of holdings is reduced there will be more reliance on winter feed?—I do not think we know the carrying capacity of the farms. I think it would be 10 or 15 times what it is at present. You can grow 10 tons of maize ensilage per acre here and that is a very moderate estimate, and in average years when we get more rain our grass is always standing like your meadows at home, in Kent, in summer time.

5697. Can you tell us why with its rich resources your land is not more largely exploited?—Well, we have not boasted our advantages. I believe we are a very conservative people—the farmers. I believe the majority of the old population do not want new people in the country. They do not see the advantages accruing therefrom. I do not say that of the progressive section of the population; but, unfortunately, some of our farmers are not progressive. Then we have had many drawbacks. We have always been at war. We have had practically every disease imaginable to combat. And when you come to think of all these things, the wonder is that we have made the progress that we have. There was the backward state of science in this country—the uneducated position of the farmer—because in thinly populated countries education is difficult. I say in view of all these things our advance has been little short of marvellous. Then there have also been so many other attractions. People wanted to get rich quick and went to the mines.

5698. That is the point I was coming to; is it not a fact, in addition to what you say, about the drawbacks, that in the past the readiness with which people have been able to make money in mining has diverted attention from the cultivation of the soil?—I think so.

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5699. And is there now a disposition, do you think, to go in the opposite direction and to take to the permanent course of wealth—the land?—As far as I can see the present trend is decidedly in that direction. I find the country doctor, the lawyer, the storekeeper, all have their farms, and their idea is at some time or other to retire on to the farm. I think it is a good movement.

5700. **(Mr. Campbell.)** Can you give a reasonable explanation of the fact that in a country where, I suppose, bacon is dearer than anywhere else and maize can be most cheaply produced these bacon factories did not succeed?—I say it is purely owing to the fact that the farmer here is so conservative. He is slow to take up any new branch of business. Once someone shows him that it pays he is as keen as anyone else in making money. In this country with our wide areas, news travels slowly. A good many do not read the newspapers. Our labour is very scarce because we have to compete with the mines. In view of these different factors it takes some time to make a thing pay. People want to jump into a thing all at once. But the farmer never expects to make any new line of business pay for a matter of two or three years.

5701. That only makes my difficulty all the greater. I have never been in a country where the farmers, no matter how conservative they might be, have not been ready to make money when the opportunity was there, and here I cannot see why, with your opportunities of growing maize cheaply and with the best market for bacon in the world, and with all the opportunities that exist, you cannot stop this importation of some hundreds of thousands of pounds worth of bacon products every year. Can you give any other explanation?—Well, the fact remains that we have not done so, and the fact remains also that people—men I know—are making a very excellent profit out of pig-raising.

5702. You say you have other lines that pay better than this. You have quoted maize as one; what are the other things that pay better than bacon at South African prices?—I would like to qualify that. For the labour involved and the amount of labour involved. To rear pigs successfully you want reliable labour and regular labour. They want feeding regularly and they want close attention. That labour you have not. We have only the raw savage and he is most unreliable. You cannot always be looking after these men, and so the pigs are being neglected. In that way, the man running a pig farm cannot give it the necessary personal attention and close supervision which it requires. The farmer on a large mixed farm to-day cannot afford it. He has not the labour at his disposal. That is why I said it was essentially a thing for the small man who can give it personal attention.

5703. Well, could you suggest any possible policy to the Commission by means of which the small man could be brought on to the land and this industry fostered?—I do not think I can. I hope the Commission will find a way. By immigration, possibly.

5704. But we are here to receive suggestions from people who understand local conditions?—Well, I think the difficulty will to a certain extent be removed if the right class of man from home comes to this country. We only want of your best. On account of our native question we cannot absorb the people they absorb in Canada or the United States or Australia. The class of man I should like to see come here is the boy who is a natural born leader—who leads in sports, in games, and in every branch of public school life. With that class of immigrant this country would rapidly develop. On account of the native question we cannot absorb the thousands of people who every year go to America and Canada. And I think that is partly the reason why we have in the past rather paused in encouraging immigration.

5705. **(Sir Alfred Bateman.)** You want a class that is rather scarce even in England?—Yes, I am afraid so. But that is the need.

5706. **(Sir Alfred Bateman to Mr. Findlay.)** What is your point?—In regard to wheat and tobacco and a few other crops that are grown on irrigated land—I am speaking on behalf of the small holder—the man who may in future come to this country and who will work a plot of irrigated land of, say, 20 morgen at the outside under water, and with a certain area of dry land, possibly 200 or 300 morgen altogether. There are many parts of the Transvaal where a man cannot exist on 200 or 300 morgen, but if he is in a district like Rustenburg, which is semi-tropical, or in a part of the Marico District, or in the country round Pietersburg, which is not absolutely low country but perfectly healthy, I think such a man could do well with tobacco and wheat, provided there was irrigation. The small man would do very well. We have unlimited possibilities in this country for tobacco, but we want an over-sea market. We have been selling tobacco and making money rapidly for a few years, but we have now got a trust which we feel is beginning to influence the tobacco trade.

5707. Have you a trust of your own?—No, but it is working in this country. The company buys the tobacco and is bringing down the price. We are endeavouring to fight it with co-operation, but it is hard work; and if we could get an export of our tobacco, even at a very low price, it would still pay us because we could sell our local tobacco at a better price. We could export pipe tobacco at 4*d*. per lb. and by getting a high price for the local product it would bring up our average. One cannot grow tobacco at 3*d*. and 4*d*. to make it pay unless we get a higher price for the local product.

5708. You want a second market?—Yes. We as growers are willing to place large quantities of tobacco at the disposal of our Government if the Government will place it on exhibition in other countries, and it has occurred to me that if, say, Australia were to exhibit our tobacco in Sydney and Melbourne, it would help us to get a market and we think our Government should approach the other Colonies with that object in view.

5709. You do not expect the Government to go into the business itself, but only to help with these exhibitions?—Yes.

5710. I suppose you know that at the Imperial Institute in London there is a complete exhibit of your tobacco?—This is probably true if you include the exhibit recently sent to the Sub-tropical Exposition, which is to be held in London this year. But there is a laxity amongst us in that way which is to be regretted. Our Trades Commissioner is constantly complaining that it is not done, but we hope to do it. The point I want to draw attention to is the openings for the small man. Two men, for instance, with a couple of morgen of land can make a good living provided there is irrigation, and we have large irrigation schemes in the low country. The high veldt, as we know, is the watershed, and as the Administrator remarked yesterday the country is not suitable for large schemes of irrigation because we are too close to the watersheds. But with all due deference I make this one exception, apart from the instance which he gave, namely, that of Hartebeeste Poort on the Crocodile River. There are several large rivers in the low country that would pay very well to dam up, and then we could produce tobacco and cotton and many other tropical products for which the small holder would find very profitable employment.

5711. Have you any idea what is the quantity of land in the Transvaal which could be irrigated?—Take the Hartebeeste Poort scheme as it is called, which is three hours from town. There is virgin soil, I believe, of about 30,000 morgen which could be put under irrigation. It was asked where we were going to obtain the land. But under that scheme the Government would take half the area and this land the Government could immediately place at the disposal of settlers; and if we can get anything like a market over-sea there is no doubt that the tobacco farmer, who will always be a small hard-working man, will make a good living.

5712. **(Mr. Garnett.)** Are you producing all the pipe tobacco that is consumedi n South Africa to-day?—No, a considerable amount of tobacco is imported

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into the country. There is room for considerable improvement in the manufacture of our tobacco.

5713. Is it a matter of taste more or less?—I think it is a matter of manufacture.

5714. I mean that the tobacco appeals more to the smoker's taste from the way it is put up than yours does?—I think so very largely, the fault lies with the manufacture and not with the grower.

5715. Something might be done to improve your process by better methods to make the tobacco more palatable?—No, the quality of our tobacco is admitted to be good, but there is an over-production of pipe tobacco, and we must get an export market.

5716. Then you do not hope to supply the whole of your consumption?—I think that in time, as the manufacture improves, we can produce that same class of tobacco.

5717. **(Sir Alfred Bateman.)** What is this Trust you spoke of?—It is the United Tobacco Company.

5718. Do they own shops?—No, but they have a big influence with the storekeeper, and I think that ultimately the trade will be practically in their hands

5719. So far as you know, is the trade in the Transvaal in their hands?—It is gradually getting into their hands.

5720. The difficulty will be to sell your tobacco to anybody else?—It is very difficult.

5721. **(Sir Alfred Bateman to Mr. Kleinenberg.)** What are your points?—The few points on which we have not touched in the memorandum. I take it the object of the Commission is to hold out inducements to people to come and settle in this country, and to show what the possibilities of South Africa are as a whole.

5722. Our reference is not quite that. We have to inquire into the various questions affecting the resources of the Empire and the interchange of trade between the Dominions and the Mother country, and to make recommendations?—We would like to point out the possibilities of this country for farmers who tackle work with energy and with a moderate capital. I would like to point to the great advance made in growing lucerne in the Transvaal. Years ago it was grown almost only in the Cape Province, but in the last couple of years we have had excellent crops in the Transvaal, especially on the dolomite or limestone formation. In the district where I live, the Zoutpansburg district, we get from 1½ to 2 tons per acre, and we can cut as many as eight or nine times a year.

5723. How many years does it remain without resowing?—It has not been grown here for long, but I think from five to ten years. In addition to lucerne-growing we have lately introduced into the Province a profitable source of farming in the way of ostriches. I think it has been shown that we can grow excellent feathers in this part of South Africa. Of course, the slump in the feather market, due to the vagaries of fashion, has affected the industry, but we do not think it will be a permanent set-back; we think it will be profitable in the future.

5724. Are there a large number of ostriches here?—Pretty considerable, but I do not know the number. Then there is the question of cotton-growing, which has been proved to be possible in the low-lying parts. The Government for years past have carried on an experimental station called Tzaneen in the Zoutpansburg district and they have grown some excellent cotton. Another possibility is sugar-cane. There was a recent article in the *Agricultural Journal* in which it states that it has been proved beyond question that sugar-cane of commercial quality can be grown in the Zoutpansburg District. We have a very large area there which can be put under sugar-cane, and, I think it will only be a progressive policy to induce men to go in for that class of farming and open up attractive country which has been lying dormant for twenty to twenty-five years.

5725. Can you get labour easily?—Very large quantities. The value of land in that district, which comprises 25,000 square miles, is from 10*s.* to 50*s.* a morgen, which is very low. It is a very sparsely populated district with a population of only about 12,000, but with a large native population of about a third of a million. I point out this to show the possibilities of settlement in that part of South Africa and the branches of the farming industry which are capable of development. In addition to those there is the cattle-ranching industry which has been taken in hand in Southern Rhodesia by the Liebig people. That territory is on the northern borders of our district. They have embarked on a very big cattle-ranching scheme, and a part of our country is practically identical to that of Southern Rhodesia.

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APPENDIX I.

Evidence given by Mr. LEWIS H. S. JONES, Managing Director of the Newcastle Creamery Company, at Newcastle, Natal, on Monday, 23rd March 1914, before a Committee of the Commission, consisting of Sir RIDER HAGGARD, Mr. T. GARNETT, and the Hon. E. R. BOWRING.

1. **(Sir Rider Haggard.)** What is your position here?—I am Managing Director of the Newcastle Creamery Company and a produce dealer, and have been resident in this district for the past twenty-seven years. When I first came here the farmers were only growing small quantities of mealies and potatoes, and up to sixteen years ago I had to proceed to Harrismith and Ladysmith to get my supplies. Since the last war, however, in 1902, more farmers have come into the district, and they have been able to grow enough mealies and

potatoes for themselves, and send a supply to the markets of Johannesburg and down country as well. This is owing to a number of progressive farmers coming here and going in for agriculture and mixed cattle-farming. This is a good district for potatoes, and we can grow two crops, early and late. The late crop is taken out in winter, and finds a ready sale in Johannesburg and Pretoria. The potatoes for the past three years have been good, and I can safely say the last crop were sold at 15*s.* per bag of 150 lbs. This worked out at 10*l.* per ton, f.o.t. railway, Newcastle. The reason for the good prices is that the Johannesburg produce dealers buy up winter crops of potatoes in advance, on account of their keeping qualities. The early crop averages about 7*l.* 10*s.* per ton. I have known farmers produce 5 tons per acre.

2. What fertilizers do you use?—Saffco (C.A. Fertilizer Co.'s) and Fison's fertilizers (imported). The district also produces Kafir corn, while mealies averaged eight bags, or 1,600 lbs., to an acre, up to 15 bags mealies per acre, 3,000 lbs. Kafir corn would return about 10 or 12 bags per acre, but the ground requires fertilizing, and sells on an average for 15*s.* per bag of 200 lbs., say 7*l.* 10*s.* per ton. The district also produces Kafir corn, mealies, forage, and wheat, but the two latter not to a very large extent, the climate not being suitable, besides which we cannot compete with other parts of Natal, Free State, or Northern Cape Colony. The introduction of the "white flat rate" is a great drawback to the farmers. Cape forage, from the Malmesbury District, Cape Colony, can be brought by rail to Newcastle for 30*s.* per ton, while to send forage from here to Durban costs the same amount. Malmesbury is a great forage and wheat district, and the farmers go in for it largely, thus blocking Natal farmers, and it is impossible for us to compete with them, besides which the climate and soil are a drawback.

3. Are there any other crops you can grow?—Yes, lucerne, but there are no facilities for irrigation here. We erected a weir about 3 miles down Incandu River, and it has been very successful, and a large extent of ground could be irrigated if the Buffalo River were dammed up by Ingogo. We have been very unfortunate in our normal rainfall for the past few years—our seasons are not as they were a few years ago. I could not say what the normal rainfall is. It is not regular but falls in patches, but I believe the approximate rainfall is 26 inches.

4. If there is this amount of rainfall, you do not want to depend much on irrigation, do you?—No, not to a great extent, except for winter crops.

5. Which are the best paying crops?—Potatoes, mealies, and Kafir corn. On the whole this is a good cattle district. During the rinderpest large numbers were wiped out, but since then farmers have improved their stock. For four or five years the cattle suffered heavily from East Coast fever, but, notwithstanding, the farmers find their stock is increasing now they go in for dipping.

6. Since dipping has been introduced, have you lost many cattle through disease?—The East Coast fever only broke out in the township about twelve months ago, but I can safely say that we have not lost 20 head since dipping. Since dipping the disease seems to have stopped. No one need fear to import stock if they dip regularly.

7. Is there any sickness where cattle are effectually dipped?—No.

8. How about sheep? Is it a good sheep country?—It is a good district for sheep, and the farmers find that during the winter months sheep are sent here from the Transvaal and the Orange Free State.

9. How about horse-sickness?—There is not so much as in the past. We had it for several years, but it is certainly not so prevalent as formerly. Quite a number of farmers are dipping for sickness.

10. Is the agricultural position here generally prosperous?—Yes. I know young farmers who started here eight or ten years ago on mixed farming, cattle, and agriculture, and they are doing well.

11. What amount of capital is required to start an average farm here?—When I came here land was 15*s.* an acre, but now it is up to 40*s.*, and a farmer starting in this district now would require three times the capital necessary in former days, because now they have no transport riding to do and have to depend solely on the farm.

12. Is all the land farmed?—No, a good few of our farmers have farms also in the Free State. Between Buffalo Bridge and Utrecht and a distance of about 14 miles there are only four farms, and they are all sheep farms. The sheep and cattle farmers do not care to part with their land here. It is surprising the amount of land we have here which is only used for grazing. If the land were sold we should have a larger population. Land cannot be bought here under 40*s.* per acre.

[Witness considered that the farms sold by the Government were worth the price asked, and added that a man could not start farming in the district with a smaller capital than 2,000*l.* to be independent.]

13. **(Mr. Garnett.)** Can you tell us the amount of land which has come under cultivation, say, in the last fifteen years?—I cannot.

14. Can you say how much the population has increased since peace?—I cannot; I can only say that we have more children here than we had fifteen years ago.

15. Has the opening of more collieries brought increased population to the neighbourhood of the town?—I cannot say what the increase would be, but it is, at least, over 300 per cent. If you take the European, native, and Indian labour, I am safe in saying that it has increased over 300 per cent.

16. It follows that, in spite of this large increase, you have been able to support the population and also to export. Can you say what this is due to?—It is due to more land being cultivated.

17. Do you consider this place suitable for closer settlement?—Yes.

18. What is the minimum size of holding you would recommend a man starting upon?—Not less than 400 acres of good soil.

19. What capital would he require?—2,000*l.* would be the minimum to pay cash for all requirements and to keep free of debt.

20. What are your dipping regulations?—We are required to dip for five days in the summer and seven days in the winter. It is compulsory to dip sheep for scab.

21. **(Mr. Bowring.)** You referred to two qualities of potatoes—the early and the late. Is there much difference between the quality of the two?—Yes. The early crop is gathered in December, January, and February. The consequence is that the potatoes are wet and will not keep. Most of the potatoes grown here are from imported seed, and we import every year, because we are unable to keep our seed for the late crop. We get nearly all our seed from England—Sutton's and other seedsmen.

22. Are you making any advances towards improving your crops?—Yes. There are farmers who grow their own crops specially for seed. Potatoes have improved of late years.

23. You referred to the railway rate as being 30*s.* per ton. Will you tell us something more about this? Is it the same all over the Union of South Africa?—From Cape Colony to Newcastle it runs 1*l.* 10*s.* per ton, but this is only allowed on long distances. You can send mealies from here to Cape Colony at the same rate as from here to Durban—260 miles. That acts very much against us, and is not good for the community at large. With regard to fertilizers, Saffco is a Durban production, and is largely taking the place of imported fertilizers.

24. With regard to irrigation—have you plenty of water here?—Yes. It runs to waste. If it was stored there would be plenty for irrigation. Very few farmers have dams; certainly not like the Free State and Cape Colony.

25. Does there seem to be a great demand in this neighbourhood for irrigation?—I could not say, but there would be if tried.

26. With regard to the sheep which are pastured here in the winter, do they come very long distances?

—Yes, from Standerton and Vrede district; that would be about up to 100 miles, and from other places, while places in Transvaal farther away send their sheep to Swaziland in winter.

27. **(Sir Rider Haggard.)** You have told us that no farmer can successfully start a farm with a smaller capital than 2,000*l.* That means, of course, that very few can start, as few young men have that amount to invest in land, &c.?—Well, if he starts on 2,000*l.* clear he can do well and is a made man.

28. Can a man desiring to start farming get any assistance from land banks?—We can get assistance in Natal now, but I do not think the terms will be so easy in the future, as the land banks have been lending out money at a loss to farmers. I do not know to what extent a man can borrow from the land banks, but the private banks would prefer to lend money on farms than on town properties.

29. You talk about 400 acres as a minimum. Do you infer that this means that it is all good, deep, arable land?—It should be good arable land.

30. What is the depth of your soil?—From 2 feet to 12 feet; it varies.

31. **(Mr. Garnett.)** Into what sized lots has the town cut up its land?—Into about 300 to 400 acres.

32. Now, will you tell us briefly about this creamery?—In October 1912 we had a capital of 3,000*l.*; we eventually got 4,500*l.* From October 1912 to September 1913 we paid out on 113,148 lbs. of butter-fat, which averages 9,429 lbs. per month. From October 1913 to February 1914 we paid out on 83,531 lbs. for the five months, which averages 16,706 lbs. per month. The cream falls off from May and continues to do so up to September, but, of course, if we could get it all the year round it would be better for all. The money paid to the farmers from October 1912 to September 1913 was 7,709*l.* 9*s.* 10*d.*, averaging 642*l.* 9*s.* 2*d.* per month. Since we started the creamery, under two years ago, all this money is circulated around the district. Prior to that a lot of farmers never sent cream away, but when they found their neighbours drawing 12*l.* to 15*l.* per month, others joined in. This is one of the best districts for stock from this side of Ladysmith up to Charlestown. Farmers have been buying in this district to stock the lower districts of Natal. If we can get closer settlement here we shall have more farmers going in for the 400 to 500 acres.

Our butter is valued according to the Australian and New Zealand markets. Australia can land butter at 1*s.* 2*d.* per lb. wholesale: we can get 1*s.* 4*d.* per lb. The average price throughout the year is 1*s.* 3*d.*

33. **(Sir Rider Haggard.)** That is higher than the Australians can land it in your own country?—Yes. We had a loss of 500*l.* last year, but within the last five months we have wiped that off. Last year we had 200 suppliers; this year we have 260.

34. Are the farmers shareholders?—Yes, as well as the town people. It is a co-operative dairy.

35. **(Mr. Bowring.)** How does your butter compare with Australia and New Zealand?—Very well. It compares very favourably with imported butter and fetches equally good prices in the market. If more creameries were started in good districts they would do well. The whole of Natal can thank the Hon. Joseph Baynes, of Nel's Rust, for starting a creamery. He is the father of creameries here and the pioneer of dipping cattle.

36. **(Mr. Garnett.)** What about the quality of the cream supplied to you?—We find that the quality is of a very high percentage of butter-fat, containing on an average 48 per cent.

37. What is the explanation of that high percentage?—It may be on account of the quality of the grass and cattle, and it may be that the farmers feed their cattle as well.

38. Where is your butter sold principally?—In Johannesburg and its district and the northern district of Natal. The railway rates are very cheap; no matter what the distance, the cream is carried at 1*d.* per gallon and the cans are returned free.

39. The Government is doing what it can, by low rates, to assist your industry?—Yes.

40. Are your profits divided in the form of dividends or bonuses?—It is in the form of a bonus to supplier and shareholder.

41. **(Sir Rider Haggard.)** What is the average wage paid to white labour employed on the land?—I do not know.

42. Is native labour plentiful?—Yes, but the difficulty is to get the native to work on farms. The farmers complain about the scarcity of native labour. They will work on mines; they will work in towns, but they will not work on farms.

43. What do you consider a reasonable wage?—I would rather the farmers answered that. I think that a farmer should pay a native a wage of 1*l.* to 1*l.* 10*s.* a month, the same as they do in towns, and then I am sure the native would not leave the farm.

APPENDIX II.

Johannesburg, Thursday, 2nd April 1914.

Evidence given by Dr. William MacDonald, author of "Dry Farming: its Principles and Practice," sometime Government Dry Land Agronomist, and Editor of the "Union Agricultural Journal," before a Committee of the Commission, consisting of Sir H. Rider Haggard and Mr. Tom Garnett.

(*For evidence of this witness on "Land Settlement and Irrigation," see p.* 47.)

(Witness.) I would like to point out that there is at present a great lack of agricultural statistics in this country, and I do think that an effort should be made to put the statistical problem on a proper basis. For example, owing to this lack of statistics, our farmers are apt to be rather careless, and they have no proper idea of how much seed they sow and how much harvest they are reaping; consequently it is very difficult to give you data regarding produce per acre. There is no doubt in my own mind that we live in the richest agricultural country in the world. By that I mean to say that our farmers are getting heavier crops per acre than any other country I know of. Now, I want to turn to the subject to which I have given the most attention. For the last ten years I have devoted my attention mainly to dry farming. To-day, it is difficult to describe the marvellous transformation of the agricultural industry in South Africa due to dry farming. Before we started our campaign in this country, about six years ago, nobody had any idea that these high dry lands would successfully raise crops. Well, what have we proved? We have shown that not only can you grow cereals such as maize, wheat, barley, and rye, but you can also grow mangolds, turnips, and potatoes, and you can grow all your fruit trees on these dry lands. The effect of dry farming has been revolutionary. There is nothing like it in modern agriculture. Now, you might say to me, what are the limits of dry farming? There are practically no limits. For example, if you were to come with me

into the Kalahari desert, what would you find? You would find there the wonderful Tsamma melon, which grows on, say, a 4-inch rainfall on the top of a scorching sand dune. You would find too there the Bushman grass which grows on a 2-inch rainfall. Consequently, there are no limits to drought-resistant crops and the extension of dry-farming method. But that leads us to another point. There is no doubt in my mind that at the present moment we are witnessing the invasion of the desert. The other day, a friend of mine, who is one of the most practical agriculturists in this country, Mr. William A. McLaren, the representative of that well-known English firm, Messrs. John Fowler & Co., Ltd., Leeds, came to me and said: "I have just come through a desert, and it is not the "Kalahari, or the Sahara, but the western Free State." Now, you can readily understand the seriousness of the situation, if desert climate is extending into the Free State. It will not be long before it will affect a very large agricultural section.

1. **(Sir Rider Haggard.)** Is there any cure?—Certainly. What we should do is to try and restore the old conditions of this country by afforestation. This country once had a great deal more timber. For example, if you were to go to the region around Kimberley you would find the stumps of thousands and thousands of these beautiful camel-thorn trees, which are very slow growing and which have been ruthlessly destroyed in the early days and used up for fuel and props for the Kimberley mines. But that is only one small area. The same thing is going on all over the country. I do not know any country in the world which really is witnessing such frightful devastation.

2. Would you kindly explain to us what is the exact effect of the cutting of these trees with reference to the rainfall and the conservation of moisture?—The first thing you notice when trees have been cut down is the baking effect of the soil. The soil becomes as hard as iron, and what is the result? The rain comes down on that soil and it washes all away. The second point is "sluiting" or the formation of dongas. Now, if you were to come with me to the Free State you would see the finest land in South Africa being washed away; and that Free State land is the best wheat land in the country. All along the Basutoland border, and, indeed, that whole country-side is being cut up into dongas. These dongas are growing deeper every day. I am convinced that if our Government would only make it compulsory for every farmer to plant a few trees the effect would be amazing. Compulsory tree planting is as important as compulsory dipping. Trees have a beneficial effect in changing a dry climate to a moist climate. I am certain that if we were to commence a great scheme of national afforestation we would gradually change our arid conditions and throw back the frontier of the desert.

2*a*. Would you kindly define to us the meaning of dry farming?—Dry farming may be defined as the conservation of soil moisture and the growing of drought-resisting plants. Firstly, the conservation of soil moisture. How are we going to conserve the soil moisture? Suppose that you were to go on to the bare veldt and intended to plough up 100 acres of land. You must wait, of course, until the rain comes in order to get your plough into that land because it is baked hard by centuries of time. Once that land has been ploughed up you must leave it for a whole year with nothing upon it; cross plough it and harrow it. You then wait for the next rains. Instead of the rains running off the bare hard veldt, as formerly, it sinks into the ground. You then harrow again to form the ground blanket or soil-mulch. There is always a tendency for the rain to come to the surface again. It is, doubtless, drawn up to the surface by surface tension, or, in other words, by the rise of the capillary soil films.

3. How deep does that rain go down, and from what depths does it rise?—An English authority, Mr. A. D. Hall, of Rothamsted, has traced the rise of water from a depth of 200 feet. If it is true that water rises from that great depth it is equally true that the best soil is one of uniform texture which is not broken by different strata or rock formation. Rain which is rising by means of the capillary soil films, when it comes to any intervening layer, is blocked and does not readily get to the surface. It will rise, however, easily through soil of uniform texture. But you do not want it to escape from the surface, and that is why you must keep the surface loose. If you keep the surface soil loose it forms the dry soil blanket or "mulch" which effectually prevents the evaporation of the soil moisture. I now wish to touch on the fall of water. The rain that falls on the land that we have prepared for dry farming soaks into the ground, but it soon rises again to the surface, but we do not let it escape. In other words, we bottle it up so that we can draw upon it as required. At the present moment we are holding that rainfall as a reserve against a period of drought. My own view is that this reserve of rain may be held in the ground for two or even three years. Now, what does this mean? Dr. Widtsoe, in his book on dry farming, mentions experiments in Utah, in the United States of America, which have proved that the heaviest crop has been harvested in the year of drought. It is evident that such a crop is not only utilising the rainfall of the current year but is drawing on the reserves of the banked-up rainfall of the previous year. Therefore, if we can hold in our soil a moisture-savings bank, then we can eliminate the danger of drought, because we are not working on the rainfall of the present year, perhaps a very scanty one, but we are drawing on the rainfall reserves of previous years.

4. I have seen in passing some terrible examples this year, which I presume are farmed on this dry farming principle. I have seen mealies not more than 18 inches high, and, if your arguments are sound, I do not see why both mealies should not have been, at any rate, normal. How do you explain that?—The reason is that the farmers whose mealies you have seen have not been carrying out our dry farming principles in the proper manner.

5. You believe that South Africa is agriculturally the richest country in the world. How do you justify that belief?—By the variety of its products. There is no country in the British Empire, there is no State in the United States, that can produce a larger variety of crops than we can produce. If I had time I could show you the sugar zone, the tea zone, the wattle zone, and the potential coffee zone and fibre zones. In the Zoutpansberg district there is a large area excellent for cotton culture and sub-tropical cultures such as oranges, bananas, pawpaws, pine-apples, and mangoes. Then as to our cereals. There is nothing to touch our winter apples, such as are grown in the district of Ermelo in the east and the district of Lichtenberg in the west, and apricots and plums all over the country. There is hardly any single thing in the whole range of agriculture that we cannot produce.

6. What about the quality of your land?—The lands on the Orange River are very rich. There is a country with good potentialities from Prieska down to Kakamas on the Orange River. You will find sometimes as much as 50 feet of alluvial loam in river sidepatches; land that can carry oranges, ostriches, and lucerne, but, of course, at present it suffers from want of both railways and population.

7. What is the value of the land down there?—Dry land varies from 5*s*. to 10*s*. a morgen, but for irrigable land you have to pay much more, say from 10*l*. to 30*l*. per morgen. The Government owns the land surrounding the Great Falls, now called "The Cataracts of King George."

8. Do you mean to say that the Government still demand 30*l*. per acre?—No, I was talking of private owners, but it is almost impossible to say what is the price of such land. It varies so greatly. The Government has settled a colony of poor whites at Kakamas, an account of which I have given in the "Conquest of the Desert." But there is a great deal more land all down the Orange River. Many of these lands along the Orange River are very rich lands, and these, so far as I know, are held by the Government and still undeveloped.

9. Is it not the case that large tracts of land are held speculatively for a rise, and that the present owners make no use of it whatsoever?—Yes, that is so. We live in a very speculative country.

10. I want to know if these lands are suitable for date-farming?—That is not a question on which I can speak with authority, but I read what you said the other day at Bloemfontein, and I entirely agree with you. I believe that it would be quite possible to grow dates with, say, a 10-inch rainfall, because I see that the French in the arid parts of Algiers are growing olives on a 10-inch rainfall, and I have no doubt that date-planting would be both possible and profitable.

11. What is your rainfall?—It varies from about 10 inches per annum at Prieska, in the Cape north-west, until you reach the coast in Namaqualand, where it is sometimes very low, even down to 3 inches per annum. Where the land can be irrigated it would be possible, by boring or utilising the Orange River, to utilise, by pumping, a good deal of the land adjoining the river for date-planting.

12. Does the rain fall at the time the date would come into bloom?—I do not know about dates, and cannot, therefore, answer that question.

13. I am told that there are sharp frosts there?—I do not think that the frosts in that part of the country would be severe enough to injure dates. It is a very warm country. You may think that Johannesburg is warm, but it must be remembered that the further west you go you are always getting into a warmer belt.

14. Are you aware that date-growing is one of the most profitable at the present moment. I myself have worked out the figures and I make it that the return is 50*l.* per acre per annum. Dates are the bread of the East, and there is not a sufficient supply?—I think that it is an excellent idea, and I am glad that you have brought it up. The mere fact of your coming here and impressing it upon our attention will do much good.

15. I call your attention to it and would suggest that you make a study of the subject?—I shall be delighted to do so.

16. You cannot give any figures as to the frosts in the Prieska district?—I do not think that it would be possible to get any reliable figures regarding the frosts.

APPENDIX III.

Johannesburg, Thursday, 2nd April 1914.

The following Memorandum, prepared by the Secretary of the South African National Union, was submitted to the Commission:—

(*The portion relating to Fruit-growing is printed on p.* 320.)

Maize and Cattle-farming.

As a field for maize-growing the Union of South Africa, especially the Transvaal and the Orange Free State, is, by general admission, in the front rank. The present yield will be considerably increased in the near future as the advantages of better cultivation are realised. Even now it gives the well-equipped and industrious farmer an excellent return on his capital, and the energy demanded in cultivating and harvesting the crops is not great, owing to the possibility of employing machinery for nearly every process.

As maize culture is gradually coming to be understood in South Africa, there can be no division of the heading given to this statement. Cattle farming can be profitably conducted without growing maize, but the feeding of cattle on a large scale is an economic consequence of extensive maize culture.

The whole of the high veld and other vast stretches of South Africa are endowed with rich soil. The climate is superb, and the combination of soil and climate gives conditions under which the finest maize in the world can be grown.

The remarkable recovery of agriculture after the blows dealt it by rinderpest and the war is well known to all interested in South Africa. After the war agriculture may be said to have started *de novo*, and that, too, with nothing more than the slender resources lent to the farmer by the Repatriation Department. To some extent this growth was due to that spirit of energy and enterprise in the affairs of peace which appears to seize on men after a prolonged war, and which in agriculture here found a climax in the formation of the Transvaal Department of Agriculture.

Maize culture and the breeding up of stock received an impulse which has been gaining in momentum ever since. The former was gradually worked up to supply the internal requirements of the country. In 1908 there was a surplus, not much in itself, but the event was of the greatest importance. For the first time, the country seemed to awake to its possibilities. The surplus was exported. No event before had proved so stimulating. The railways and shipping companies, till then supported largely by the import traffic, responded to the demand for return freight. Maize is now carried at 2*s.* 8*d.* per muid (of 203 lbs.) from any railway station in the Union to London.

In 1909 1,514,139 muids of maize, and meal made therefrom (mealie meal), value 665,957*l.*, were exported.

The following are the export figures for the Union from 1910 to 1913:—

	Muids of 203 Lbs.	Value.
		£
1910 - -	1,767,975	699,583
1911 - -	1,030,389	409,391
1912 - -	1,003,590	480,064
1913 - -	136,165	83,678

The export returns provide the only index as to the progress made. As there is no machinery for taking accurate statistics of acreage planted, production, consumption of maize on the farm, &c., it is impossible to prepare a statement on maize culture that is of first-class value. The establishment of a statistical bureau under the Government is now in contemplation. It is certain, however, that a greater quantity of the grain raised has, since 1911, been annually fed to stock on farms. There have been more cattle each year to feed. The feeding of ostriches during the past few years has also been an outlet. But according to the census returns of 1911, the total production of maize in the Union was only 863,200 tons of 2,000 lbs. for the year. This figure shows that a real beginning has not yet been made to exploit this great source of national wealth. The yearly production of the United States of America and the Argentine is from 90 million to 100 million tons of maize.

The root cause of this difference is in our rainfall, temperature, and rapid evaporation of moisture. These are our difficulties, not the quality of soil, which is good. Every man has to fight the climate in which he lives and meet its varying conditions. It is submitted that in this country the battle is being

waged without a proper regard to existing conditions of climate.

The rain falls during the growing season. The rest of the year is a long period of ideal harvest conditions. The crop is left standing until it is dry. The frost then gives it the best finish maize can have. It is due to its fine quality, and the fact that it is dried naturally, that South African maize is much sought after for human consumption and for manufacture.

Between the rains in summer, and especially during the long dry season, the South African sun has an extremely drying and hardening effect on the soil. The frosts in winter are not severe enough to break up the soil, and there is no snow. Consequently, during the dry months, the ox-plough has little effect on the land. When the conditions favour ploughing with oxen, the tillage cannot be done deep enough to provide the reservoir required under such rainfall and climatic conditions as apply in South Africa.

In the best maize districts the crops have to be planted in the middle of December to ensure their benefiting, and not being destroyed, by the earlier frosts. The climatic conditions that make the maize produced in South Africa the finest in the world are, therefore, the conditions that make a very large expansion of maize-growing impossible except by mechanical ploughing. The acreage put under the plough by oxen must be necessarily small and the depth not great enough. Consequently, only fractional parts of the vast areas of our fertile soil are brought into productive account, and if the attempt is made to add depth the area is necessarily still further lessened. The ideal rainfall conditions would be that showers should fall so frequently as to maintain a constant supply of moisture. Every added inch of tillage reduces the standard of this ideal. The farmer who ploughs 4 inches deeper than his neighbours talks "drought" much later, or not at all.

For purposes of comparison, maize production in America is frequently cited. But the conditions there favour animal power for ploughing. The severe frosts of winter perform all the subsoiling required, and shallow ploughing only is needed. *Here the climatic conditions demand deep ploughing.*

The need of the country is a system of ploughing that will supply our two greatest requirements, *i.e.*, deep tillage and the power to deal with a large acreage. With these the future of the industry will be assured.

Then with regard to the second feature of maize-farming, *i.e.*, the best use to which we can put the crop, reference must again be made to America. The American farmer carries his maize-farming to final results, and realises it in beef. This is the most profitable method. When he sells any maize it is his surplus of grain, which, together with the stalks, he has not stock enough to consume on the farm. His two principal anxieties are to have enough feed for his cattle and enough cattle for his feed. He understands the maize crop as so much tonnage—stalks and grain. It will be so understood in South Africa when maize culture is conducted by methods suitable to the country, although the problem of feeding cattle on the maize farm here will always be lighter owing to the mildness of the winter. At present maize is spoken of and regarded as *bagged* grain. The bagged produce is only part of the return. Statements are frequently seen purporting to be the cost of producing a bag of maize, as if it were a bag of potatoes. Although this cost is worked up to the cost per acre, the large tonnage per acre of beef-forming fodder gets no place in the account, the bagged grain only being regarded as the revenue. When South Africa is producing maize in quantities at all commensurate with the possibilities, as in America, it will not be the stalks, but the surplus grain sold off the farm that will be regarded as the by-product of maize culture.

For the greater part of the year the natural veld pastures in all the maize districts of South Africa have good stock-carrying capacity, and normally the cattle are maintained on these alone in excellent condition. No more striking proof of the limitation of maize production is afforded than that the trek oxen, when the rains commence in October, are often too poor to plough. The national loss to the country through the want of winter feed runs into an incalculable amount of money. The farms are stocked with an eye to the summer and not the winter-carrying capacity. It is the latter that will form the basis of stocking, under the conditions that will best suit South Africa. If the condition of a bullock on veld pastures up till June is maintained till October, it can be sold on a certain market at a price that has risen by at least 10*s.* per 100 lbs. There is no cheaper winter feed than ensilage, which is made from maize cut whilst at its most succulent stage, chopped up and cured in a silo under a natural process of heating and fermentation.

Experiments have been going on for a number of years to ascertain the most suitable breeds of maize for certain classes of soil, *i.e.*, those giving the heaviest yield in the shortest time. Although much valuable information on this head has already been gained, the cross-breeding of different types is being continued, and it is likely still further improvements will be made. It is now known what descriptions of maize are most in demand in the European markets and the condition in which the grain must be sent. Definite types have been agreed on and a system of grading by Government officials has been instituted at the ports. Growers now know what they have to aim at and the price more or less they will receive. But so far they have failed to realize the greater advantages of exporting their grain in the form of meat.

Messrs. John Fowler and Co. of Leeds, the manufacturers of the double engine steam plough, who have been closely identified in the most practical way with agriculture in South Africa for the past ten years, have done much to show that maize-growing and cattle-raising are twin industries and that they will probably be the largest agricultural industries of the South Africa of the future.

Some particulars of Messrs. Fowler's achievements in this connection have been kindly supplied by them and are appended hereto.* An interesting pamphlet* on this subject issued in 1909 by the railway company is also submitted.

Although the right use for maize is for feeding stock in the country of production it will probably be exported from South Africa for some years to come. In the early stage of maize production in America the bulk of the crop was sent over-sea. Now it is used for the purpose of manufacture as well as a food for stock of all kinds. A similar change will come about in South Africa, but it is encouraging to know in the meantime that a large market exists in Europe, and that owing to its high quality South African-grown maize realises 2*s.*–3*s.* per quarter above that from other places. It is now so favourably known in the markets of Europe that it is not likely grain from any other part of the world will be able to oust it from the position it has obtained. This supremacy is the result of the favourable climatic conditions that exist here. There is no rain at the time of harvesting and, consequently, the grain does not need to be artificially dried. For this reason South African maize is greatly in demand for manufacturing purposes. Up to the present it has been grown almost entirely for the sake of its grain, but it can be profitably employed for many other purposes, such as the manufacture of breakfast foods, corn flour, starch, glucose, dextrine, corn oil, cellulose, oil cake, poultry food, paper material, and whisky. Although still small, the industry has been established on a firm footing, and all that is now required is production on a scale that will enable South African-grown maize to be largely used for beef production and to take its place in the markets of Europe as one of the leading crops of the world. The absence of capital for the development of the industry on a large scale is the only reason that prevents South Africa from obtaining her share of the enormous existing demand oversea.

* Not reprinted.

Cattle-ranching in what are known as the bush veld areas of the Transvaal, in particular, where artificial feed is not necessary, is justly considered to be one of the most prosperous forms of the pastoral industry, for there is an enormous profit in stock-raised under the conditions that now exist. In the past many drawbacks have militated against the success of ranching, the absence of any railway in the neighbourhood, the prevalence of tick fever, and horse sickness and malaria. These difficulties are no longer present to any extent. The consequence is that some large areas have recently been purchased for stock-raising. In the bush veld cattle do well in most years without artificial feeding and can, therefore, be sold on the local market at very profitable rate. The local value, say, 32*s.* 6*d.* for 100 lbs., is low compared with European values, but the cost of production is far less. The demand of the South African markets is now so considerable that a very large expansion of cattle ranching is justified, in view of the fact that all the artificially-fed meat can be exported.

There are, in the Transvaal in particular, considerable areas that can be obtained at very moderate prices, because of their unsuitability for much else than stock-raising. It is the purchase of such land that is recommended for cattle-ranching where maize or other feed can be done without.

Maize-growing for export, or in conjunction with cattle-breeding, or cattle-ranching simply, have an unlimited future in South Africa. The possibilities of the development of agriculture in these directions are far greater than any that have taken place in the mining industry, enormous though that has been. There are few schemes that present better opportunities for obtaining a sound industrial investment than maize-growing and cattle-raising in South Africa.

Mr. J. Van Zijl, of White Ladies, Orange Grove, a member of the Union, who was examined with reference to the memorandum by a committee consisting of Sir Rider Haggard and Mr. Garnett, was not wholly in favour of mechanical ploughing on the ground of the greater liability to damage of the plough. He was also more in favour of the export of maize than of keeping it to feed cattle. He endorsed the views stated in the memorandum as to the future of the Transvaal and the Orange Free State as a field for maize culture and for cattle-ranching.

APPENDIX IV.

Returns furnished by Mr. J. B. Moffat, Director of Census, and formerly Secretary of the Economic Commission. (*See* Question 5535, p. 251.)

Comparative Agricultural Produce Return—Cape of Good Hope.

Year.	Production.						
	Wheat, 1,000 Bushels.	Maize, 1,000 Bushels.	Wine, 1,000 Gallons.	Brandy, 1,000 Gallons.	Tobacco, 1,000 Lbs.	Butter, 1,000 Lbs.	Cheese, 1,000 Lbs.
1865	1,390	325	3,237	431	1,633	—	—
1875*	1,688	1,113	4,486	1,068	3,060	—	—
1891†	2,727	2,894	6,013	1,423	—	2,801	46
1892	No returns.						
1893	3,891	2,734	6,145	1,550	4,488	2,900	34
1894	3,098	2,761	4,560	1,384	5,079	2,978	37
1895‡	2,465	2,380	5,432	1,387	4,963	3,163	27
1896	2,188	1,728	5,687	1,265	4,580	3,204	49
1897	Returns incomplete.						
1898	1,951	2,061	4,861	1,387	3,934	2,623	37
1899	2,221	2,858	4,824	1,107	No return	2,879	No return.
1904	1,702	3,395	5,687	1,534	5,309	3,605	58
1911	3,915	5,184	7,489	617	3,767	4,954	414

* British Kaffraria annexed. † Griqualand West, Transkei, Tembuland, and East Griqualand annexed.
‡ Bechuanaland and Pondoland annexed.

Comparative Livestock Return—Cape of Good Hope.

Year.	Livestock.				
	Horses.	Cattle.	Sheep.	Angora Goats.	Ostriches.
	Thousands.	Thousands.	Thousands.	Thousands.	Thousands
1865	227	693	9,836	121	No return.
1875*	206	1,112	10,977	878	22
1891†	444	2,211	16,706	3,184	155
1892	No returns.				
1893	360	1,970	16,794	2,811	232
1894	340	1,931	15,155	2,620	240
1895‡	345	1,945	15,612	2,611	253
1896	388	2,304	14,409	2,607	225
1897	Returns incomplete.				
1898	383	1,202§	12,722	2,983	268
1899	388	1,077	12,640	3,015	261
1904	255	1,954	11,819	2,776	358
1911	334	2,715	17,135	3,340	728

* British Kaffraria annexed. † Griqualand West, Transkei, Tembuland, and East Griqualand annexed.
‡ Bechuanaland and Pondoland annexed. § Rinderpest.

Comparative Livestock Return—Orange Free State.

Year.	Horses.	Cattle.	Sheep.	Angora Goats.	Ostriches.
	Thousands.	Thousands.	Thousands.	Thousands.	Thousands.
1880	132	612	5,196	427	2·3
1890	249	895	6,620	628	1·5
1904	76	363	3,000	402	1·3
1911	221	1,286	8,588	546	9·1

Comparative Agricultural Produce Return—Orange Free State.

Year.	Wheat, 1,000 Bushels.	Maize, 1,000 Bushels.	Tobacco, 1,000 Lbs.	Butter, 1,000 Lbs.	Cheese, 1,000 Lbs.
1880	278	297	147	—	—
1890	612	557	290	—	—
1904	191	1,163	680	637	14
1911	698	5,365	807	3,827	101

APPENDIX V.

Memorandum by Mr. JOSEPH BURTT-DAVY, F.L.S., F.R.G.S., F.R.H.S., F.R.C.I., F.R.Soc. Arts, Botanist, Transvaal Maize-breeding Station, Vereeniging; lately Government Agrostologist and Botanist, Union of South Africa, on

South Africa as a Field for Maize-Farming.

IMPORTANCE OF THE MAIZE CROP.

I think it is not generally realised that the world's consumption of maize is greater than that of wheat,* while it takes only one-half of the acreage laid down to wheat to produce the same yield of maize. At the same time the foliage of the crop yields an enormous amount of highly nutritious stock food. It is claimed that there is no farm crop grown which produces a heavier yield of stock food than maize.

The importance of this crop as a source of food for man and his domestic animals, and also as a source of supply of commercial alcohol, starch, glucose, dextrine, and other commercial products has been described at length in my book on "Maize, its History, Cultivation, Handling, and Uses" (London, Longmans, Green and Co., 1914), so that I need not burden this memorandum with further details on this point. It will suffice to point out that the world's consumption of maize is about 1,100,237,180 muids (of 200 lbs.), *i.e.*, 3,928,947,000 bushels; of this the European Continent absorbs something like 43,200,000 muids, and the demand is constantly increasing as new uses for the crop are being found. The European markets are at present supplied chiefly from the United States and Argentina. The local consumption of these two countries is steadily increasing, and their surpluses are decreasing, while the European markets are looking out for other sources of supply. The climatic conditions which control the distribution of the maize crop are such that there is practically no area of any size, of suitable land, left in the United States and Canada fitted for maize-growing.

At present the whole of the African Continent produces only about 1 per cent. of the total world's production, while the United States of America contributes 75 per cent. But there is no reason why we should not contribute a much larger percentage; in fact, as a field for maize-growing, British South Africa is the most suitable and most promising undeveloped area of equal size in the whole world.

We have an ample average rainfall, at the right season of the year, and phenomenally favourable winter weather for the natural production of the quality of grain most suitable for shipment, whereas the Argentine is always hampered by her autumn rains, which often seriously damage the crop. Owing to the dryness of the winter over the greater part of South Africa, the farmer is able to continue harvesting and shelling in the field up to the very day when he starts planting the new crop; in this respect he has an enormous advantage over the farmer in either North or South America. The percentage of grain which is damaged by the weather is exceedingly small; the moisture content of the grain exported (without artificial drying) is some 5 per cent. lower than that of the American-grown article. South Africa has, and is likely to have for many years, an excellent local market for a large part of her crop, the Rand Mines alone taking over 750,000 muids per annum. Because she owns her own railroads she can carry her surplus to the coast at cost. With this great advantage in her favour, South Africa has good reason for optimism as to the future of her maize industry. There is good ground for the prophecy that South Africa is to become the maize granary of Europe.

Our present average yield is low (not over four muids per acre), but good farmers are producing an average of 20 muids (72 bushels) of maize per acre, and I expect to see still better yields as our maize lands get into better "heart," with more humus in the soil. The present low average yield is considered to just about cover expenses of production; if the yield were more than doubled, therefore, maize-growing should pay handsomely.

I believe that the Transvaal alone will be able to, and will in the near future, produce without difficulty 35,000,000 muids per annum.

Maize will always be the staple cash crop of South Africa—as its value for stock food becomes better appreciated the local demand will increase, and in this connection Earl Grey's recent prophecy (at the "South African Dinner," 1913) of a coming shortage of the world's beef supply is suggestive. Maize and cattle-farming go hand in hand.

We exported 1¾ million muids in 1910.

MACHINERY.

There is a good and rapidly growing market in this country for maize-growing implements, such as are manufactured in the United States and Canada. Also for "shellers," nearly all of which come from

* Actually 147,000,000 bushels more.

England. Reapers, shockers, and binders are not yet much in demand, but the demand will grow as the farmers get more capital to spend on implements. Nearly all our maize planters and cultivators are made in the United States. Every year the merchants *under-estimate* the demand for planters owing to the astonishing increase in their use, and in the acreage put under crop. At the beginning of the planting season it happens year after year that you cannot get a single planter of certain favourite makes at any place in South Africa. I know one small country firm which sold 52 maize planters in one season, which was more than they had sold in the preceding seven years! This should give some idea of the rapid progress being made. There is great need for a smaller and cheaper husker and sheller.

The preparation of maize silage is steadily on the increase, and the demand for silage-cutters and for shredders is keeping pace with it. These facts should be brought to the notice of English, Canadian, and Australian manufacturers.

Bulk Handling.

If the Government would take its courage in both hands and adopt the bulk-handling of maize as so ably recommended by Sir Thomas Price in his Report of 1911, it would give a great impetus to the export trade. (*See* addendum below.)

I am fully alive to the fact that it is better to make our maize walk to market on four legs than to export it in the form of the raw article. This, however, must come naturally with increase of immigration, smaller holdings and increase in dairying and pig raising. In the meantime and for many years to come local production will be greater than consumption, and the export trade will benefit the agricultural community by bringing capital into the country.

Direct Shipment.

Our maize trade would be in a much better position if we had direct shipment to Liverpool, Manchester, Waterford, and Glasgow; at present nearly all our grain is sold through London, and transhipment to those ports adds to our costs what might otherwise be gained by the competition of these markets to secure our grain. The merchants at these ports are very anxious to handle our maize. With the ports competing it seems to me probable that our trade would be diverted from the Continent, which now consumes more than Great Britain. London brokers admit that theirs is the cheapest grain market in the world, and as long as we are solely dependent on them we cannot secure such good prices as would be the case if we could ship direct to other ports.

I believe that it would be greatly to the advantage of both South Africa and the other Dominions of the Empire if the commercial bodies of the latter could be made aware of the fact that South African maize is the best in quality and condition of any produced in the world. An export trade with Australia has already commenced. I think India might take large quantities of our maize in exchange for the more expensive articles of commerce which she produces and we do not. The climatic conditions of Canada do not allow her to produce more than a fraction of the maize which she requires for manufacture and stock food, and I understand that the direct lines of steamers between Cape Town and New York and Canadian ports could carry our maize for less than the charge on some 1,500 miles of rail over which United States maize is carried from the "Corn Belt" to Toronto, Montreal, or Quebec. Egypt also, though a producer to some extent, is also a buyer of maize, and we might perhaps secure her trade if she knew what we produce.

We can produce maize probably more cheaply than Australia, India, or Egypt, because it is grown on relatively cheaper land—land which is much cheaper than that of the "Corn Belt" of the United States of America. Land in India and Australia suitable for maize-growing is too valuable because it can produce other and more expensive crops, which we cannot produce on our maize lands.

Teff-grass.

I think it is highly important that the other parts of the Empire should become acquainted with the value of teff-grass (*Eragrostis Abyssinica*) as a source of hay. I published articles on this subject in the *Agricultural Journal of the Union of South Africa* and in the *Kew Bulletin* a short time ago, but these publications are scarcely likely to reach the notice of farmers in other parts of the Empire. It is a known fact that the introduction of teff into South Africa has raised many small farmers from positions of penury to comfort and independence. Our farmers admit that this introduction alone has repaid over and over again the whole cost of the division of botany of the Department of Agriculture from its inception to date.

Need for more Farmers.

The land is crying out for men—capable trained farmers with 1,000*l.* to 1,500*l.* capital. Opposition to immigration is passing away. At our Transvaal Agricultural Union Congress now meeting a resolution favouring immigration was passed on the evening of April 2nd, the first time in the history of the Union that we have been able to get such a measure through. We need good farmers—of the yeoman type—from England and Scotland. For the development of the low country, where cotton, tobacco, and sugar-cane can be grown, we need a few hard-working settlers from the States, accustomed to cope with malarial fever and therefore not afraid of it.

Profits in Farming in the Transvaal.

I doubt whether there is at the present moment any country in the world where capital put into the development of agriculture can be so rapidly doubled as in the Transvaal. I know a case where a young man *cleared* 1,500*l.* the second year of farming on the Transvaal high veld. I know other cases where farmers have bought their farms outright after paying rent for six years, and in the meantime have completely fenced, camped, built farm buildings and houses, and got together herds and flocks, besides planting shade trees, windbreaks, and orchards, and have lived plainly but comfortably on the proceeds of their farms. In three such cases the men started with only 1,500*l.* capital and paid 90*l.* per annum rent. Their crops were maize (the staple), potatoes, and teff, and they supplied milk to Johannesburg, about 100 miles distant.

We have excellent land, as cheap for its potential value as any in any other healthy part of the world; as fine a climate as any in the world, where our men and our stock can work on the land from one year's end to the other; we have excellent railroad service, low export rates, and an assured and growing market for all the maize, meat, and wool we can produce.

Addendum.—We use 2½ lbs. "A" twill, jute grain-bags, imported from India, for the export trade, and "B" twill for the local trade. The cost of these bags to the consumer has increased 100 per cent. in the last five years, and this fact may force us to adopt bulk-handling. Indian manufacturers would be well advised to consider this point and to try to keep our grain-bag trade.

Vereeniging, April 4, 1911.

(b) Cotton.

CAPE OF GOOD HOPE.

Cape Town, Thursday, 26th February 1914.

Mr. Laurence Woodhead called and examined.

(*For the evidence of this witness on "Fruit," see p.* 315.)

5726. **(Sir Alfred Bateman.)** I think you have sent in a statement to the Commission ?—Yes, I understand you desired to have some information about cotton.

The statement is as follows :—

For the seasons 1910–11 we supplied some farmers with cotton seeds, namely Metafife, Nyasaland, and American Cleveland. The ground upon which the seed was sown was situated mostly in the Clanwilliam and Piquetberg districts. I gave the farmers full instructions in regard to planting, but only in a few instances were these instructions carried out. The fact remains, therefore, that the results were very disappointing, as in addition to the usual pests, there was an absence of vitality in the growth that seemed to indicate the non-suitability of the soil and climate for cotton-growing. Mr. Scherffius, Pretoria, the Union expert, visited the district at about the time the crop was growing, and was not impressed with the possibility of success being attained. I may say that Mr. Rowarth, Cape Town, who has had considerable experience in cotton and cotton-growing, visited several of the farms during the season in the hope of creating enthusiasm amongst the farmers, but without success.

The small quantity of cotton returned was sent to Messrs. Dyer and Dyer, of East London, to be ginned, with the following result :—

Lbs. of Cotton.	Net returned ginned.	Return of Cotton Seed.
2,040 lbs.	715 lbs.	1,281 lbs.

The ginned cotton was shipped to the Manchester Cotton Growing Association and realised 7·33*d.* per lb.

This season I have addressed farmers in regard to a further experiment, but they are disinclined to trouble further about it.

5727. You have had only local experience, I understand ?—Yes.

5728. You would not like to express an opinion on the prospects generally of cotton in this country ?—No.

5729. **(Mr. Garnett.)** Can you tell me on what acreage that 715 lbs. of cotton was produced ?—No, I could not say.

5730. Because on the face of it it looks as if the scale was not considerable ?—No. It was obtained from quite a number of farmers.

5731. And in addition to the apparent unsuitability of the soil you seem to be troubled with pests ?—Yes.

5732. The price realised was not bad ?—No.

5733. It is not produced commercially ?—No.

5734. **(Mr. Campbell.)** When you supplied the farmers with cotton seeds, did you act only as a providing firm ?—Yes.

5735. You did not act in connection with the British Cotton Growing Association in England, did you ?—No.

5736. Then it established the central ginnery in this country, I believe ?—Yes, it was at East London.

5737. And it has been abandoned, so I understand. They have handed it over to the Government ?—Yes, I think so. As a matter of fact Mr. Jagger himself imported a small gin for this district which we have not used on account of the small return of the cotton.

5738. Are these gins not used at all ?—Those at East London are being used. We have not used ours here.

5739. Do you know anything about the recent experiments in Pondoland ?—No, I do not.

5740. Was that done by the Department of Agriculture ?—I do not think so.

Cape Town, Thursday, 5th March 1914.

Mr. Frank Braybrooke Smith, Secretary to the Department of Agriculture for the Union of South Africa, called and examined.

(*For the evidence of this witness on "Land Settlement," "Animal and Agricultural Produce," and "Fruit," see pp.* 9, 176, *and* 318.)

5741. **(Chairman.)** Have you anything special to say in regard to the cultivation of cotton ?—No, we are experimenting with it. In some cases the experiments have been very promising, but it has not yet become a staple crop like mealies or tobacco, although this year, owing to there not being a good sale for tobacco in the Rustenburg district, a great many of the farmers have changed from tobacco to cotton.

5742. What is the total export of cotton from South Africa ?—A very small number of bales. It is not a commercial quantity at the present time. The development of cotton cultivation in this country is a question as to whether the land is suitable and whether sufficient labour is available at a suitable price. The first trouble is that the plant is delicate and difficult to get established, and if we get a drought just when the plant comes up or a very severe wind the drought wilts it, and the severe winds bring sand across the crop and cut it off and then, again, unfortunately, the cotton districts are rather bothered with hail. We have not got the consistently good economic and climatic conditions which exist in other parts of the world, but we have got fair conditions.

5743. Is there sufficient labour for picking the cotton available, or is that likely to prove a difficulty ?—We hope that we may be able to get it established in the neighbourhood of the native locations so that we can get the help of the women and children to pick it, but we have not succeeded up to the present.

5744. **(Mr. Campbell.)** Were not some experiments conducted in Pondoland last year ?—Yes.

5745. Successfully ?—Yes, the plants were grown in very rich and sheltered valleys on good soil.

5746. Is there any quantity of that land ?—No, not large quantities.

5747. Do you think that is a wise experiment ?—Local people who did it thought so. We gave advice and they carried out the experiments. As a matter of fact I think it would pay the men who tried the experiments well.

5748. Where were the experiments conducted by the Cotton Growing Association?—Mainly in the northern part of the Transvaal—the Zoutpansberg.

5749. They were not successful?—No.

5750. Were not some tried near East London?—Yes. But there, unfortunately, the ground was not well chosen either. It was the very reverse of the ground in Pondoland. It was high, wind-swept country, and the plants were blown away.

5751. Does the Agricultural Department intend to continue the experiments?—Yes, we are making experiments at various stations. We have one at Rustenburg, one at Barberton, and one at Tzaneen; also at Piet Retief in the Transvaal.

5752. **(Sir Jan Langerman.)** In regard to the cotton-growing experiments, could not the Zoutpansberg and the Waterberg and the Tzaneen Estate carry cotton profitably?—I think so. Our experiments have been satisfactory on the whole.

5752*a*. There would be room for people to take up land for cotton?—Yes.

East London, Monday, 16th March 1914.

Mr. N. F. Howe Browne, B.A., Cotton Grower, called and examined.

5753. **(Chairman.)** I understand you are interested in cotton-growing?—About eight months ago I arrived here after serving an apprenticeship in the United States, Texas, the West Indies, and Egypt. I spent about two months in Manchester and got an insight into cotton-spinning through the assistance of the British Cotton Growing Association. I came out here under the auspices of Mr. H. E. V. Pickstone. I started on a motor bicycle to tour the country from Humansdorp to Durban. We wanted to keep near the coast for various reasons, one being to save railage. I eventually chose a place about 28 miles west of East London, where I am at present, and I put about 60 acres under cotton. I cannot give you any details as to what the crop will be like because I have not yet reaped a crop. But the cotton is looking exceedingly good and the growth is satisfactory at present, and it is well fruited. It is looking particularly good considering the adverse conditions it has had to contend with this season. You will no doubt be aware that we have suffered very much from drought in this country this past year, and farming generally is not looking at its best. But the cotton is holding up splendidly and I hope to get a fairly good crop. As regards the climatic conditions which have to be met with, we are greatly worried with winds, but that is a disadvantage that can be combated. We ought to do well also in regard to labour, which is one of the chief difficulties in regard to cotton-growing throughout the world. Cotton is a crop that requires a certain amount of skilled labour. I have found up to the present very little difficulty in that respect, although I have not had the experience of actually gathering a crop yet. As regards the climate, I like this spot, first on account of its rainfall, which is sufficient, and more than sufficient, for a good cotton crop. We average about 34 inches a year, and that is ample; secondly, I like this district because there is a very long growing season. We have practically no frost and I think I am right in saying that we can estimate a ten month growing season for the cotton, whereas in the States the crop has to be planted, grown, and gathered within seven months, and those conditions favour the growing of an extra long staple cotton, which I understand is what the spinners in Manchester and the general English trade desires to have. That is what they have aimed at in Egypt, growing a longer staple. The best cotton which has been grown in this part of the world has generally realised a longer price in London than the average American cotton has done. I do not know that there is very much else that I can give you. I cannot give you any figures, as I have not been here long enough to gather a crop, but those are my impressions as regards the average conditions round here.

5754. Is the area on which you are now cultivating cotton the best of all you saw in South Africa?—Well, no, it is not the best. I consider that the great cotton-growing area along the coast is in what are known as the Native Territories. I think that they are, if anything, more favourable to cotton-growing than this district. But the white man is debarred from getting a holding there. I mean the Transkei and Pondoland. That is along the coast between here and Durban. Of course, the Government is trying to introduce cotton there and some people at Port St. John's have done exceedingly well. The Government expert was at Port St. John's a month ago and he came back and told me they were going to gather a crop realising two bales to the acre, which is very nearly four times as much as the average grown in America. That would be 1,000 lbs. of lint cotton to the acre.

5755. Where is that place precisely?—Port St. John's is 200 miles up the coast from here.

5756. Has that been grown on Government land?—No, it has been grown by some people called Wardlow and Kirsten who have a trading station there. These trading stations, I understand, are limited to about 15 to 20 acres, and throughout the territories a white man can only get a trading station if he is five miles away from any other trading station. So one is debarred from getting a site there. That is the spot I should like to have chosen, but I consider the place which I have is well adapted for cotton-growing.

5757. Speaking generally, would you say there is a large area suitable for cotton-growing?—I would not like to say there is an exceedingly large area, but I think that every farm which I have seen has some land which could grow a very long staple and high-price cotton.

5758. Your idea is that a small portion of the farm should be devoted to it?—Yes.

5759. **(Mr. Garnett.)** What acreage have you now under cotton?—I have about 50 acres.

5760. What is the character of the soil, is it well adapted for cotton?—The soil on my farm is a deep alluvial soil. I would not like to say how deep it is, but it is river-bottom land of fair richness.

5761. What preparation did you give the land before starting? What had it been growing before?—Before I started it had been growing weeds and ostriches. I had a very up-hill fight and I do not by any means consider that the crop which I have now has had a fair chance as a cotton-growing proposition. We had every kind of pest and every kind of weed to get rid of, which had been allowed to grow there for twenty years.

5762. You have not had it thoroughly cleaned yet?—No.

5763. What preparation did you give it?—I started off by ploughing the land over twice. I harrowed it well and planted a crop with a two-row planter, a machine which is used in America, and I cultivated it with a disc cultivator, also an American machine.

5764. To what depth?—The cultivation was only to a depth of about 1½ to 2 inches.

5765. What depth did you plough?—I ploughed 12 to 13 inches.

5766. Did you give it any manure?—I have not put any manures on the ground, and I do not believe it is necessary to do so. I think the soil is quite rich enough at present.

5767. Can you tell us the cost per acre, or the gross cost?—No, I would not like to commit myself to any figures as to cost, but I can tell you that the expense

this year is infinitely greater to what it will be in future, on account of the weeds which we had to get rid of

5768. You have had all the pioneer work to do?—Yes.

5769. You could not tell us what the costs are then?—No, I prefer not to do so yet.

5770. You say you have plenty of labour?—I have found ample up to the present.

5771. Do the natives take kindly to it?—Yes, I get all I want.

5772. What do you pay your labour?—The boys who live on my farm receive 1s. 3*d*. a day and they find themselves. The boys who come to the farm to work get 9*d*. a day and their food, that is those who come from the big native locations in this district. Their rations would cost about 3*d*. a day.

5773. Have you to house them?—No, they have huts on the place. I have not built them and I have had no expense in that way.

5774. But you really find them accommodation?—Yes, I suppose I do. But on the other hand, the huts do not cost the owner anything. The Kaffir always builds his own hut, and you could not put a white man into it, so I do not think you could put that accommodation on the expenses account.

5775. What varieties of cotton have you put in?—I have put in Allen's long staple seed, which the British Cotton Growing Association got for me, and I have also a small experimental patch of some stuff from South Carolina.

5776. What is the characteristic of Allen's staple cotton?—It is a long staple Mississippi Valley cotton grown round about Memphis.

5777. Is it Bender's?—It may turn out Bender's but I cannot say yet, I hope it will.

5778. Have you tried any Egyptian?—No, I have had three lots of Egyptian cotton given me in Liverpool, but I have not sown any this time although I hope to get the ground ready and put it in next year.

5779. What is the length of staple that you expect you will get from those varieties you have put in?—I think Allen's long staple ought to give 1⅛.

5780. That is a very valuable cotton?—Yes, I can only say that judging by a few diseased boles which have opened prematurely. I do not expect my general crop to open for another six weeks.

5781. You have put in these varieties on the advice of the British Cotton Growing Association?—Yes.

5782. From information which you supplied to them?—Yes.

5783. Do you think that those varieties would be the best economically?—Well, the British Cotton Growing Association have carried out these experiments very extensively and they find that this variety holds up better under foreign conditions than any other kind, and in Nyasaland it has developed a new type which is known as Nyasaland Upland, which was nothing but Allen's long staple cotton originally.

5784. You say you have a rainfall of about 34 inches in this district. How is that rainfall distributed?—It is well distributed over the year. June, July, and August is the time when we get our lowest rainfall. Most of it is distributed over the other nine months at the rate of practically three or four inches per month.

5785. When is your planting season?—That is a question which is a very open one. I planted my cotton this time in October. General Brabant advised me to plant before that, in the middle of September, and a good many years ago people used to plant a lot of cotton in these parts in June, which shows you the length of our growing season. It is quite possible to plant in June and I know the seeds will germinate.

5786. How is your rainfall as regards preparing the land. I understand you want the land fairly dry for ploughing, do you not?—I do not think we get too much rain at ploughing time.

5787. After the seed has been put in, your rain comes at a seasonable time?—Yes. The cotton seed has been known to remain in the ground for a month waiting for rain and then to germinate.

5788. You have no frosts?—I do not think so. I have not been here a year yet, but they tell me not.

5789. Then there is nothing practically to arrest the growth of the plant until its natural exhaustion?—No. They tell me it is better to leave the plant in the ground and that the second year is better than the first.

5790. I suppose you know that the British Cotton Growing Association does not favour that ratoon cotton?—No, and I do not like it myself either. But one must give some attention to local experience.

5791. Then as you have no killing frosts there seems to be nothing but the natural exhaustion of the plant to prevent boles forming?—That is all.

5792. I understand that in America if they have a mild autumn and an open winter they go on picking into January?—Yes. The only limit to their picking is the amount of labour they have.

5793. In regard to this experiment at Port St. John's, how many acres have they?—I understand about 15.

5794. How long has this experiment been going on?—They started early last year. I know a firm in this town, Messrs. Dyer and Dyer, ginned their cotton and sold it in England for them and got a very high price in Liverpool.

5795. They have not grown it on a large scale yet, I understand?—No, they cannot.

5796. There is no big plantation there nor a large number of these small patches?—No. I believe that Wardlow and Kirsten are the only people who have the land. A white man is not allowed to get a holding there.

5797. Did you say you sent your cotton to London or Liverpool?—It has all been consigned to the British Cotton Growing Association in Manchester.

5798. It would be sold then either in Liverpool or Manchester?—Yes.

5799. **(Mr. Sinclair.)** In regard to the native areas, which you tell us are not available to white men, can you say, roughly, what area of ground there is available in that locality for cotton-growing?—No, I could not give you that information.

5800. Could you tell us what area you covered yourself when you were looking for a suitable place?—I covered all the land between Port Elizabeth, or Humansdorp, to Durban.

5801. And having covered all that ground I take it we may assume that the locality you selected was the most favourable for your purposes?—Yes. You must understand, however, all the time that I could not go to the Transkei or Pondoland.

5802. Can you give us an idea of the cost price of land such as you have selected?—The land I have selected cost 3*l*. an acre.

5803. Is there more of it available?—Yes, there is more land available, but I may tell you that the price is going up in this part of the world.

5804. When you say that more land is available, does that mean in any considerable quantity?—I do not think you are going to have a very large quantity of cotton grown in this district.

5805. I want to know whether the growth that may be looked for is only small or whether it is likely to expand into an important industry?—I am only talking about the East London District. In the district of King Williamstown there is also a great deal of land very suitable for cotton-growing.

5806. Can you give us an idea roughly?—No, I cannot, because it would be only misleading, but I know that every farm in this locality has at least 10 acres of land which could grow a very good cotton.

5807. How many farms where the experiment is being tried are there in this district as far as you know. I want to know to what extent the experiments are being carried on?—I am practically the only one in this district who is growing cotton at all on a commercial basis at the present time.

5808. What would you suggest as the reason for that?—I suppose the first reason is that a great many years ago people did grow cotton in this district when the price was good, and then when the price went

down they gave it up. I think that was the main reason.

5809. Have you any knowledge as to the success that attended the attempts to grow cotton?—One can only go by hearsay. They all tell you that the cotton flourished splendidly.

5810. And it was a mere question of the market price?—Yes.

5811. Is there any instruction given in this district, so far as you know, by the Government in cotton-growing?—Not that I know of. Recently, within the last two months, a cotton and tobacco expert, a man who combines the two offices, has been located in East London by the Government, and I take it that he will give all the advice that a farmer will want.

5812. You had your own experience?—Yes.

5813. I was thinking of those who have not experience. They would have the assistance of this expert?—Yes.

5814. To make a start, is much capital required?—No. I do not think so. I think it is within the means of every farmer in this district to plant a certain amount of his land with cotton without costing any more to grow than the crops he is growing at present, such as mealies.

5815. You suggest he should grow it as part of a mixed system of farming?—Yes.

5816. And you think that is the best use to which such land could be put?—Yes.

5817. **(Mr. Bowring).** Are the farms about here of very large acreage?—As far as the general farms in this district are concerned, they are not of a large acreage. Of course, lots of farms in this country run up to 20,000 or 30,000 acres, but the one I am on is just about 1,000 acres, and I do not think there are any agricultural farms in this district with a very large acreage. Of course, there are grazing farms which are bigger.

5818. Your statement then that each farmer has at least 10 acres suitable for cotton does not mean a large percentage of the whole?—No, that is quite a conservative estimate.

5819. But each one has some land which is suitable?—Yes, I am sure.

5820. Some time ago cotton-growing was quite common in this country, I understand?—That is a good many years ago. It was during the time of the American Civil War, I take it, when the price of cotton went up very much that cotton was grown in this district and in the adjoining district of Peddie, and apparently it did very well. The farmers who have lived here a number of years tell you that one of their principal jobs as boys was cotton-picking.

5821. And cotton-growing was stimulated on account of the scarcity during the war?—Yes, on account of the high prices.

5822. And after that?—The price went down and they gave it up.

5823. What induces you to think that conditions are better to-day than they were then?—Prices are higher.

5824. Is there a greater demand?—I suppose there would be a greater demand. The main point is that prices are higher. I do not suppose that climatic conditions have changed at all. If you can grow cotton to-day and get 10*d.* a lb. for it, whereas formerly you only got 4*d.* after the time of the Civil War in the United States, that would seem to be a sufficient inducement.

5825. But the market conditions are the same for them as for you. The competition is just the same now as it was then. What makes it better to-day to grow cotton in South Africa than in the days of the war?—I think simply the price. I think that is the only reason one can give.

5826. There were no diseases then or pests that destroyed the cotton?—No, not that I know of. Of course, I am talking of a time of which I know nothing personally. I am simply going by hearsay.

5827. But you can only judge as to your future success by what has happened in the past, and I was wondering whether any pests destroyed the cotton the same as in regard to the cattle?—No, I do not think so.

5828. And if they did so whether you would not find the same trouble?—No, I do not think so. Mr. Taylor was down here from the Transvaal during the recent East London Agricultural Show, and he is in charge of cotton-growing in the district of Rustenberg, and he tells me they have encountered absolutely nothing up there of that sort, and there is nothing down here which is at all serious. We do get the ordinary aphis, but that is only a tiny insect and does not do a great amount of harm.

5829. It is more or less under control?—Yes.

5830. You take steps, I suppose, to keep all these things back as far as possible?—Yes, naturally.

5831. So there is no reason why you should not grow cotton with a great amount of success?—That is so.

5832. **(Sir Rider Haggard.)** Do you know Uganda?—No.

5833. I understand that cotton grows there to a large extent?—Yes, I believe so. I understand they expect big things.

5834. They have a prospect of an enormous increase?—Yes.

5835. Do you think from what you know of this climate and the conditions generally as regards the soil and the labour and so forth that you will be able to compete with Uganda?—It is a difficult question, this question of competition in regard to cotton-growing. But we believe we shall find a market for our cotton and a fair price, so I do not think we need worry about what other people are doing.

5836. You do not think that Uganda, with its enormous prospective production, would have the effect of underselling you?—One can only take the case of the United States. They produce most of the cotton, and their average crop, I suppose, would be 13,000,000 bales of 500 lbs. each every year, and it does not make the slightest difference to them whether Egypt has a bigger crop or India or anywhere else. It is simply a case of supply and demand.

5837. What is the price of planting cotton per acre, the price of growing the crop in this part of the world?—That is a question which I have been asked before, but I do not like to give my opinion because I have not had a fair trial.

5838. How does it compare with other crops which are grown in this district?—I do not think the actual growing of the cotton crop would be any more than growing a mealie crop, the bigger expense would come in gathering it. Of course the gathering of your cotton is the big problem all over the world where it is grown. It is the same in the United States. The growing of the cotton and bringing it to maturity is not a difficult matter. It is a hardy plant. It is the actual gathering of the crop which is the problem. A great many people in America have been for a long time trying to perfect a machine for picking it but they have not managed it yet.

5839. That is a problem you will have to take into account?—Of course, we have down here a large native population which would have to supply the labour for picking this crop. I was interested in asking Mr. Taylor from the Transvaal how they managed up there, and he told me they had very little difficulty at present getting their cotton picked by the natives. In this country it is practically impossible to get natives to do piece-work. Now cotton-picking is essentially a piece-work business. The man is paid so much a lb. or 100 lbs., and the way they got over the difficulty in the Transvaal was to get a few native girls and give them a bag which would contain about 60 or 70 lbs. of cotton well pressed down and to pay them 1*s.* if they brought that bag full of cotton the same night. Well they finished about 4 o'clock and received their 1*s.*, which was very good pay, because a native girl only gets as a rule 6*d.* a day and her food. They had no difficulty in getting as much labour as they required. And that is what we propose to do also when our crop is ready.

5840. Now about the land. I think you said you gave 3*l.* an acre for it?—Yes, that is right.

5841. Supposing you were to establish this cotton-growing experiment in such a fashion that its success was beyond doubt, is there plenty more land to be had at a reasonable figure on which it could be grown ?—I think so. I think there is plenty of land which could be had at a price at which cotton could be grown at a profit.

5842. We have found in other parts that the moment a thing is a success the price of land becomes impossible ?—Most of the other industries in South Africa are devoted more or less to pastoral pursuits, sheep, cattle, and ostriches, where very little labour is required. Cotton is something which wants a lot of labour and hard work, and I am afraid that a good many of our rural communities do not like that.

5843. You think that owing to this necessity for supervision and labour, and general intelligence, the land suitable for cotton-growing would not be increased to such a price as the ordinary grower could not afford to pay ?—No, I do not think so.

5844. And, therefore, if you can show that cotton is really a profitable crop here there will be nothing to prevent any number of persons with moderate capital taking it up ?—That is my point. You could never have large cotton plantations in this country as they are known in America, but you can have plots of from 10 to 50 acres.

5845. Why could you not have large plantations ?—The country does not lend itself to them. It is too hilly. There is not enough level ground.

5846. You would grow this cotton on the level pieces of ground in the district ?—Yes. The cotton belt in America is one long stretch of flat country from Carolina to Mexico, practically.

5847. This would mean that you would have to have a number of people with more or less skill to carry on this cotton-growing as a national industry ?—Yes. As regards the United States I may say that they are finding that the big cotton plantation is not the one that pays the best. It is the smaller one where the man simply grows some cotton for ready cash.

5848. Do you think that all these people will be forthcoming ?—I think that all the farmers at present in this district could grow a certain amount of cotton.

5849. But would they ?—I do not see why they should not if it is a paying proposition.

5850. But you said it is a thing which would require much attention and hard work, and that is not agreeable to many in this country ?—But I was thinking then of those people who go in largely for ostriches, sheep, and cattle.

5851. You think outside of those there is a large class of people who would be willing and anxious to take up this industry ?—Yes, people who would work if they had something to bring money in.

5852. **(Mr. Campbell.)** Do you get any help from the British Cotton Growing Association ?—I have personally had a great deal of help from them in so far as they did what they could for me in England and Egypt, but at present out here we have no aid.

5853. You do not get any monetary assistance ?—No.

5854. Any guarantee of a fixed price for your cotton ?—No.

5855. Would it be of any assistance to you if you had such a guarantee ?—I think it would.

5856. How do you manage about ginning your cotton ? Do you have to use your own machines ?—No, there are two gins in East London.

5857. Are those the two that were brought here when the British Cotton Growing Association tried their experiments and failed ?—Well, they are now owned by Messrs. Dyer and Dyer of this town. I cannot tell you where they obtained them from.

5858. Was it in this district that the British Cotton Growing Association conducted its experiments ?—I do not know.

5859. You do not know where that machinery came from that is here now ?—No.

5860. Usually speaking, where cotton-growing is carried on on an economic basis it is ginned at central ginneries ?—Yes.

5861. Very few people employ their own machinery ?—Very few.

5862. Is cotton-growing a business that the natives would go in for on their own lands ?—I do not believe the native would grow cotton in this district. He has very little land that he could grow it on. The natives here are divided up among the farmers, and are living on the farms throughout the district. The only way they could help cotton-growing is by working for the men on whose farms they are living. There are no actual native farms about here that could grow cotton.

5863. Do you think the native is a man who would go in for a business that required steady labour and application ?—I think it is very much a case of development.

5864. I understand the Government is carrying on experiments in Pondoland, where the land is almost entirely in the hands of the natives ?—Yes.

5865. The natives would be of very little use for carrying on cotton-growing in Pondoland ?—Yes.

5866. And therefore it is much better to carry it on here ?—Yes, where the white man is doing the work.

5867. Does the South African Government give you any assistance at all ?—Only in so far as they have an expert in East London at present.

5868. They do not offer any bonus on growing cotton ?—No.

5869. That is done where cotton is started as a new proposition, pretty generally, is it not ?—I do not know.

5870. I think you said you had served an apprenticeship in cotton-growing ?—Yes, I went on a big plantation in Texas.

5871. Do the plantations in Texas use white labour or native ?—Both.

5872. But the bulk of the labour employed in Texas, I believe, is white labour, is it not ?—Yes. That is why I went there, because I wanted to do the work myself. I preferred it.

5873. Do you see any difficulty, provided the stigma on manual labour were removed, in growing cotton here with ordinary-priced white labour ?—No, I do not.

5874. At present you do not anticipate any difficulty in getting native labour ?—No.

5875. Even if the industry were carried to as large an extent as possible ?—No, I think we have plenty of labour.

5876. I think you spoke about the possibility of ratooning your cotton and allowing it to go for two seasons. Do you think in this country, where pests have such a very bad reputation, it would be a wise thing to do ?—To tell you candidly, I do not like it, and I do not want to do it unless I find it pays.

5877. I understand that where they have attempted cotton-growing for any length of time, especially on the east coast of Africa, they have had to contend with the boll worm ?—Yes, but I no not know that it is as bad as in America.

5878. It has been a difficulty in some parts of the east coast—in Nyasaland ?—Yes.

5879. **(Chairman.)** When will your crop be ready to commence picking ?—I think in about six weeks.

5880. Will not that be rather late. Will not it land you into the cold weather ?—I do not anticipate much cold weather. The weather here will not be any colder than in the States. They pick cotton right through to the end of November until the very sharp frosts. I may mention that I have been out picking when it was so cold that the fingers would bleed.

5881. Would you please give us the name and address of the people who are making the experiments at St. John's ?—Certainly. The name of the firm is Wardlow and Kirsten, Port St. John's.

5882. I understand there have also been experiments in the Transvaal ?—Yes, there is quite a lot of cotton there now.

5883. Is that under the direction of the Agricultural Department ?—Yes. Mr. Taylor, who is in charge of it

told me he was going to make a success of cotton-growing in that country.

5884. I suppose he is an official of the Government?—Yes. He says that this year the farmers were very pleased with the cotton. They had a severe drought, and the only crop they got was cotton.

5885. **(Mr. Garnett.)** Have the pests attacked your cotton or not?—Only a little. There is the ordinary aphis. There is nothing very bad about that.

5886. Are you capable of controlling these?—Yes.

5887. You have not got the boll weevil yet?—No.

5888. Is there a great expenditure on labour to keep the land clean, chopping, I think it is called?—No, chopping is simply taking out the plants which you do not want. Cotton is planted in a continuous row, and when it is about 9 or 10 days old you go through it and take out some of the plants, leaving only one plant about every 18 inches or 2 feet, and that is called chopping. I do not anticipate much difficulty in keeping it cleanly cultivated.

5889. I think in the States the days of the great plantations are gone?—I will not say they are gone yet. But the Government is giving the planters in the South now advice to plant less cotton, because they find that if cotton is looked after better and grown on a smaller basis, it will pay better per acre than a great plantation which is simply planted and then left.

5890. Take Texas, which now produces about one-third of the crop in the States, it is not grown there on big plantations?—No, it is grown on smaller farms as a part of mixed farming.

5891. And if cotton ceases to yield a sound return, the farmers put the land under wheat or maize?—Yes.

5892. They do not tie themselves down to cotton. Cotton has been the best thing, no doubt, for some time past, but there is nothing to prevent a man going in for some other crop if he finds it more profitable?—That is quite true.

5893. That is one of the advantages of cotton, that it does not tie a man down to one crop irrevocably?—That is so.

5894. Can you give me any prices of South African cotton?—I think it has fetched between 10*d.* and 1*s.* grown on the coast. That is middling, Upland being at 6½*d.* or 7*d.*

5895. It goes from 300 lbs. to 350 lbs. on middling?—I am not talking about Transvaal cotton. This is coast cotton.

5896. If you compare those prices with the prices in the period after the Civil War, they are about 150 per cent. higher, and, therefore, while it would not have been a sound proposition at 3*d.* in competition with American cotton, the present prices put an entirely different complexion on the matter?—Yes

5897. One cannot and does not expect the farmers of this or any other country to grow cotton unless it is economically the best proposition for them to take up?—Yes.

(Mr. Sinclair.) As this witness is making his first experiment, I would suggest, Mr. Chairman, that it would be helpful to us if he would write to the Commission in England and give the results of his first crop.*

5898. **(Chairman.)** Yes, I shall be glad if you will do that?—I shall be very pleased to do so.

5899. **(Sir Rider Haggard.)** For how many years have samples of cotton been turned out in the Cape?—That is a question I cannot answer, I do not know. They have lots of samples in Manchester, at the head-quarters of the British Cotton Growing Association, showing the very best kind of cotton that can be produced, except, of course, the Sea Island variety, which we do not expect to grow.

5900. During the period of years, how much has been sent from this country?—Only sample lots.

5901. Until now the industry has never taken any real root?—No.

5902. **(Mr. Campbell.)** I understand you expect to gather your harvest in about six weeks?—Yes.

5903. Does not that bring you dangerously near the rainy season?—No. We shall be getting towards the time when we get the least rain, in June and July. I have taken the rainy season on an average for ten years, and I find the average only about 1 to 2 inches in June and July, whereas we average nearly 3 inches for the other months of the year.

* *See* p. 329.

Major-General Sir Edward Yewd Brabant, K.C.B., C.M.G., called and examined.

(*For the evidence of this witness on "Land Settlement" and Animal and Agricultural Produce" see pp.* 26 *and* 209.)

The witness made the following statement:—

Recently, for some years I have been experimenting with cotton. I have shown that cotton can be grown of good quality, and that if it is properly looked after it will pay very well, but mine were only small experiments. I have given it up now, because Mr. Howe Browne is now working on a commercial scale, and I am getting on in years.

5904. **(Chairman.)** Mr. Garnett wanted to ask you a question: You were here in the early history of cotton?—Yes.

5905. Why was cotton given up if it was so suitable?—When we began there was no town here at all. There was only one small Kaffir shop here when I first settled. There was no one to buy the cotton, and you could not get it ginned, and then again the price fell. We began just after the Civil War in America. But what really put a stop to it was the discovery of the diamond fields. Everyone cleared off there.

5906. **(Sir Rider Haggard.)** You said in connexion with another subject that some of the farmers will not trouble. And you also heard what the previous witness, Mr. Howe Browne, said?—Yes.

5907. Does it not strike you that your statement as to failure to take trouble has a great bearing on the future of cotton-growing?—In what way?

5908. In that you will not be able to get cotton taken up very largely?—You must bear in mind that the small farmer, and there are many small farmers in this district now, will probably take to cotton-growing. I know they have all along been watching the experiments, and I think they will take to it.

5909. To make a living?—Well, to make a little ready cash.

TRANSVAAL.

Pretoria, Tuesday, 31st March 1914.

Mr. W. H. Scherffius, Chief of the Tobacco and Cotton Division of the Department of Agriculture, Union of South Africa, called and examined.

5910. **(Chairman.)** You have been good enough to write a memorandum on the subject of the cultivation of cotton in the Union of South Africa which we have read with interest. Are there any other points which you would like to bring out in addition to those mentioned, or would you like to answer questions?—

Probably if you were to ask me questions it would be the best way to bring out the things you most desire to know.

The following is the memorandum submitted by the witness :—

Cotton Notes.

The cause of cotton-production not meeting with success in the past is attributable to a number of causes :—

(*a*) Cotton was making some progress in the early days along the Eastern coast, till the Kimberley diamond fields were discovered, when everybody rushed for the diamond fields and cotton culture ceased, except in isolated cases.

(*b*) In the inland areas, for the past five or six years, consistent efforts have been made to arouse a new interest in cotton culture. The drawbacks to its progress have been lack of knowledge of how to deal with the crop, indisposition on the part of the farmers to thoroughly cultivate the cotton, high cost of implements, lack of ginning facilities, high cost of transport by wagon, rail and sea, lack of an industry to utilise the product and by-products locally.

Future Prospects.—There is by far a larger crop growing at present than has ever been attempted before. Something like 8,000 acres were planted to cotton this season, but, on account of the unprecedented drought, probably not more than 1,000 acres will come to maturity, but even this will be the largest crop yet produced. Farmers are showing a decided interest in cotton culture, and will continue now until they determine whether or not it is going to be a paying proposition. Excellent results have been obtained by farmers. Isolated cases can be given where farmers have produced 2,000 lbs. of seed cotton per acre.

Ginning facilities have been considerably improved in the last year or so, and the industry has received encouragement in other ways.

The prices for lint usually range between 6*d.* to 7½*d.* per pound. Occasionally, parcels run to 10½*d.* and 1*s.* per pound where the fibre is long, strong and silky.

5911. **(Mr. Garnett.)** You say there is a very much larger crop of cotton now than has ever been attempted before, some 8,000 acres planted, but only about 1,000 will come to maturity?—Yes.

5912. In what neighbourhood is this cotton?—Principally in the Rustenburg District.

5913. Is it within easy reach of Pretoria?—Within about 70 miles from here.

5914. Could you say anything about the method by which the land is prepared?—The land is rather indifferently cultivated, especially in this part of the country, and the farmers prepare their land for cotton very similar to the way they prepare it for mealies.

5915. To what depth do they plough?—We usually try to get them to plough 10 inches, but they generally fall short of that. I should say it is about 6 inches or 8 inches.

5916. Has it been necessary to fertilise the land?—Sometimes they use a little kraal manure, but they do not go in for artificial fertilisers.

5917. Now, these 1,000 acres that you speak of. Are they in a number of hands?—Yes, probably the largest single plot would be 100 or 200 acres.

5918. Then they are growing cotton as part of a system of mixed farming?—Yes. A great many of these farmers that are growing cotton this year were formerly tobacco growers in the Rustenburg District, which is the biggest tobacco-growing centre in South Africa, and the falling off in the price of tobacco in the last year or two has resulted in their looking for something else, so they are trying cotton-growing.

5919. They have put in cotton in place of tobacco?—Yes, partially.

5920. Now, is it in your knowledge what varieties they are growing?—Well, in this area that I am speaking about—the Rustenburg District—they go in mostly for American Upland varieties, they are growing probably half a dozen different kinds, such as Cleveland's Big Boll, Christopher, Herlong, and Toole; about half a dozen American Upland varieties altogether.

5921. And from that is it expected to produce a crop with a fairly long staple?—The staple is about 1 inch to 1⅛ inch in length.

5922. Not longer than that?—No. In some cases they may get longer, but as a general rule I think that would be the length. Then another variety that will come to the fore in this district is the variety called Nyassaland, which was originated in Nyassaland, and we have some of the seed. That gives a rather longer staple—1¼ inches to 1⅜ inches.

5923. The 1⅛-inch staple, as you know, brings you right into competition with the ordinary growth of American cotton?—Yes.

5924. And as at the moment you would grow only comparatively small quantities it would be difficult to obtain a mark or name for so usual a quality. I mean to say it is simply an ordinary quality. You cannot say as yet what the length of staple is that is going to develop out of these plots under cultivation at the present time?—Well, our best results so far have come from the American Upland varieties. We have also tried Sea Island and Egyptian varieties, but some of those varieties do not seem to do so well in these inland districts. They do better close to the coast, but even there I think the American Upland varieties are doing better.

5925. The price for this variety is from 6*d.* to 7½*d.* per lb.?—Yes.

5926. 7½*d.* is about the price paid for the ordinary length of staple which you have mentioned?—Yes.

5927. But if you could produce parcels of cotton which would fetch 10*d.* to 1*s.* a lb. that, of course, would put you into a very different position?—Yes, I will show you the position in regard to that. We produced a crop of cotton down in the Transkei two years ago, and I believe that was sold for 10½*d.* That was the Sea Island variety, but Sea Island cotton in this country does not open out well, the boll only come about half open, and it takes a lot of trouble to get the cotton out, and the picking is very slow, and the natives do not take to it. It certainly brings a little better price, but the yield is not quite up to that of the American Upland varieties, and it is so much more trouble to gather that I doubt if it will pay better than the other variety.

5928. If Sea Island cotton can only be sold at the price you name then you are really up against the competition of a very much better Sea Island which damps you down?—Yes.

5929. But if you could produce cotton from American seed that would run out to 1½ inches in staple, or anyway from 1 7/16 to 1½ inches, I think there should be a very good scope for that, but now comes the question of the price at which you could produce. How are you off for labour?—We have any amount of labour, but it is not of much use. We find the natives take to it fairly well, but they are slow. Picking is the time when the farmers need more labour, and this part of the work the natives do not do very rapidly—about 50 or 60 lbs. of seed cotton per day, and that is not very much compared to the regular pick. The American average is, I believe, about 125 lbs.

5930. But for picking 60 lbs. of seed cotton, what would you have to pay your native labourer?—We usually pay about 1*s.*, so that would run out at something less than 2*s.* per 100 lbs.

5931. Well, of course, what you say would enable us to make a comparison between the cost of picking here and in America. Now, after the crop has been put in and the plants come above ground, is there much labour to keep the land clean?—No, there is one critical stage in the growth of the crop, and that is the difficulty of getting the crop established. Sometimes we have droughts here, but if we can get the cotton

planted during the rainy season or period in the early spring and the cotton can once get itself established it will stand a good deal of drought, and we do not have a great deal of cultivation to keep it clean.

5932. I was going to ask at what time your rains come?—It generally begins to rain about October; we have light showers then under normal conditions. Last year was abnormal. Then we get a bit more rain in November, but December, January, and February are usually our best months for rain.

5933. Then how long does the cotton take to come to maturity? What do you think is the most favourable month for planting?—About the 1st November, I should say, on the average is the best time; October and November.

5934. How long does it take for a plant to come to maturity?—From the time of planting till the last cotton is housed we need about six or seven months.

5935. Are you free from rains when the bolls are opening?—Yes, that is one big advantage which we have over American farmers. I come from America and I happen to know that they may have a week's rain at the time of cotton picking, but out here we can reckon fairly well on not having any rain at that time.

5936. Then you are not exposed to any boll damage from excessive rain at the time of harvest?—No.

5937. This yield of 2,000 lbs. of seed cotton is very high?—Yes.

5938. What would it give in lint?—It would give to between 500 and 600 lbs. of lint.

5939. That is about one American bale and one-fifth?—Yes.

5940. Can you say whether this particular plot you refer to had been specially fertilised?—It was not fertilised at all. This particular lot that I am thinking about now was grown at the Big Umgazi in the Transkei and in the river valley, where there is beautiful loamy soil which is very fertile.

5941. Is there a very much larger area that is available?—In that part of the country there is a considerable area, but the unfortunate part of it is that all the territory is in the hands of the natives except just round about Port St. John's, where a few miles are in the hands of Europeans, and this lot was grown on a small holding by a European.

5942. Leaving the Native Territory outside, have you much land in the Transvaal suitable for high class cotton-growing?—Yes, thousands of acres.

5943. Then it is simply a matter of the farmer being convinced that cotton is the most profitable proposition?—I would not say it is the most profitable.

5944. No; but I mean that one cannot expect these areas to come under cotton cultivation until it is demonstrable that cotton at the moment is the most payable proposition?—Yes.

5945. And assuming that it is payable, you have large areas?—Yes.

5946. Now, have you any information, speaking generally, in normal times, as to the relative advantages of cotton *versus* tobacco. You have referred to the slump in prices?—I think that even with the low prices at present, tobacco will pay better than cotton, on the average.

5947. Is that on account of the labour which is necessary in picking or the prices?—On account of the fairly good prices that the farmers get.

5948. Now about the relative cost of labour in connexion with cotton and tobacco, what have you to say?—It requires a good deal more labour for tobacco than for cotton. We reckon it takes approximately 10*l.* an acre to produce tobacco and about 2*l.* 10*s.* to 3*l.* to produce cotton.

5949. Then it is not the excessive labour that is keeping cotton back, but it is, at the moment, not the most payable proposition?—That is it.

5950. Has the Government done anything towards providing ginning facilities?—Yes, we have gins standing at present in two or three centres in the country, and in the past we have been ginning cotton for the farmers in those areas, and we, at the present time, gin and bale the cotton for ½*d.* per lb. for the lint. That does not quite cover the cost of ginning, but it is near enough. If we were handling large quantities we could do it possibly at a small profit, but just ginning 200 lbs. here and 500 lbs. there does not pay.

5951. Then the Government is alive to the possibilities of this country as a cotton-producing area?—Yes, we have at the present time ginning plants at two or three centres in the country, and there are two or three private ginning plants.

5952. Have you had any assistance in the way of loans of money or advice by experts from the British Cotton Growing Association in England?—Yes, we have, but it did not pan out very well I am sorry to say.

5953. If it is not divulging State secrets might one inquire the reason?—I think the British Cotton Growing Association has done a lot for cotton-growing in this country, but, unfortunately, in one or two instances it has not proved very successful. In regard to the matter of distributing cotton seed they have helped a great deal, but the unfortunate incident which I have in my mind happened about four years ago when the Cotton Growing Association sent a man out to look after the cotton industry. They were then producing cotton on 200 or 300 acres, and that was practically the only area in the country where cotton was grown. When this 200 or 300 acres was planted the representative of the British Cotton Growing Association went in and undertook to buy the cotton from the farmers, paying them 1½*d.* per lb. or so for the seed cotton. He took the cotton over, ginned it in this particular area, and shipped it away to England, and his agreement with them was, when they sold it, that if he got more than a certain figure per lb. they were to get a bonus. Now, some of these farmers spoke to me twelve months afterwards and said they had never heard anything more about the bonus. They had to wait many months and got dispirited and some of them quitted the business. And then to add insult to injury they had to pay rather heavy rates to get the cotton away to market. This particular area that I am speaking about was 80 miles from the railway, and it cost 2*s.* per cwt. to get the cotton shifted to the railway. Then there were the railway rates on the cotton to the coast, and when they had paid this 2*s.* and the railway rates to Durban or Delagoa Bay and the ocean freight to England there was not very much left for them.

5954. Then, evidently, the experiment was carried out when the facilities for getting cotton to market were very bad?—Yes; but it was thought that that would be the most likely area for the growing of cotton, although it was far away from the railway. Since then, therefore, I have looked round for other districts, and I feel that the Rustenburg District is quite as good for this purpose as the other place, and it is nearer to the rail. We are now pushing the work ahead in that district, and the outlook is quite satisfactory for the present.

5955. With all these heavy rates and charges on the cotton it is quite conceivable that, after all, the British Cotton Growing Association may not have made any profit on that cotton, and, in fact, they may have made a loss?—I think it very likely that they did make a loss; it worked unfortunately both ways.

5956. **(Sir Jan Langerman.)** What is the predominant constituent required in the soil in order to grow cotton successfully? Do you want a lot of lime?—Well, we have carried out some experiments in this direction, and we find that lime does not make very much difference. In one district the limed portions of the land gave a little bit more cotton than the portions obtaining no lime, but in another district I could not see any difference in the yield of cotton as regards lime, so I have come to the conclusion that lime does not seriously alter the yield.

5957. What is the temperature necessary for growing cotton? What is the highest and lowest?—Well, we find here that we can grow cotton best in

what is known as the middle veldt and low veldt. The Rustenburg District is typical middle veldt, there we have frosts in about three months of the year, but they are only light frosts, and for the rest of the year we get no frosts.

5958. What amount of frost would it be, would it be three degrees?—Sometimes it goes down possibly as low as five degrees.

5959. Would that injure the plant?—The cotton is all gone when these frosts come. The cotton that we are growing here, the American Upland varieties, would be all picked by the end of April or May, and then we destroy the field of cotton entirely and replant for the next crop in the spring. This variety which we are growing is an annual variety; the perennials we have not been very successful with in this country, one reason being that we have one or two insects, like the red stainer, that hibernate on these trees during the winter months and damage the crops next year.

5960. Do you employ native women and children on this work of picking?—Yes, and we find it is very good. They will not pick as much, possibly, as a man, but they are not so expensive.

5961. Then it will give them employment?—Yes.

5962. Where the men fail you will be able to use the women and children?—Yes; half-grown picaninnies will pick 40 to 60 lbs. of seed cotton a day.

5963. **(Chairman.)** At what cost?—About 6*d.* a day. They are really cheaper labour than full-grown men.

5964. **(Sir Jan Langerman.)** So the scarcity of adult labour could be made up by women and children?—Yes.

5965. In regard to the rainfall, do you want a lot of rain?—A fair amount; but we think we can produce cotton very nicely if we get 20 inches.

5966. That is a good deal?—It sounds a good deal, but where we have a temperature of 98° to 105° it takes a lot of moisture out of the soil.

5967. That depends largely on cultivation?—Yes, to a certain extent. When I say 20 inches of rain I am keeping myself well on the safe side. I think we could do it with less if we had the rain at the right time.

5968. You do not want rain on the plant when it is in full bearing?—No.

5969. Does it injure the cotton at all?—If it rains on it when the boll is open it injures the cotton slightly, but not seriously.

5970. Can you sketch the process of cotton-growing shortly?—Well, we first prepare our ground similarly to the way we prepare it for mealies, then we lay off the rows and plant with a cotton planter or a mealie planter. We drill the seed in at the rate of about 15 lbs. of seed to the acre, putting the rows about 4 feet apart, and then we do ordinary scoffling, the same as for mealies, when the plants are from 4 to 6 inches high, thin them, leaving the trees about 18 inches apart in the rows. Then we keep scoffling about 2 inches deep, and continue this until the squares begin to form for the bolls; when the squares begin to form we cease cultivation, because there is danger of making the squares drop off. And then there is no more work until the cotton is ready for picking.

5971. What would it cost an acre to grow cotton?—We estimate from 2*l.* 10*s.* to 3*l.* an acre, it depends on the yield, but say by the 1,000 lbs. weight, of seed cotton per acre, that could be done at a cost of probably 2*l.* 10*s.* or 3*l.*

5972. That is 1,000 lbs. an acre?—Yes.

5973. Is that raw or ginned?—Unginned cotton with the seed in it.

5974. What would be the value of such land?—I should say they would value land of that kind in this country at about 2*l.* an acre possibly.

5975. What would the income be per acre, the net profit?—To be conservative I should say about 6*l.* an acre.

5976. Well, that is a very good return on 2*l.* 10*s.*?—Yes, it is not bad.

5977. And you think there is a good field for this crop?—Yes, I think that once we get cotton established in the country we shall find that it will pay better than mealies. We have already had a number of demonstrations side by side in certain districts, and the farmers themselves have joined in these experiments and they find they have got two or three times as much from their cotton as from their mealies, and in some cases where they had severe drought they would get nothing from their mealies, but would get a fair crop of cotton.

5978. Do you know the various districts in this Province?—Yes.

5979. How about Lichtenburg, would that district answer for cotton?—I think it would do fairly well, it is just a question of whether you have sufficient rain.

5980. The rainfall is considered to be about 18 inches?—Yes, that would be sufficient if it came at the right time, that is from the time of planting until the young plants get a good hold. But suppose you planted cotton in November and you did not have any rain until February, your cotton would naturally come to nothing.

5981. **(Sir Alfred Bateman.)** This year cotton will not be a payable proposition will it, if you have planted 8,000 acres and only 1,000 are going to come to maturity?—I should explain that this is in the Rustenburg District, where the drought has been extremely severe, and a great many farmers who planted mealies in this district have none at all. This 1,000 acres that I have referred to represents small isolated areas where they got one or two showers of rain at the right time. In other areas where a lot of planting was done they had no rain at all, that is during November, December, and January.

5982. I suppose if you advocate cotton-growing to these people they would rather come down on you if they planted and got no profit?—Yes, naturally they would, but if they had a reasonable season they would do much better with cotton. I have heard a good many farmers say that they have planted cotton and mealies in the same fields, but the mealies have dried up in the fields and are only a foot to 18 inches high, at the same time their cotton plants are standing there a foot high and green to the ground. These farmers say that cotton plants will stand drought a great deal better than mealies, even if they do not make a crop.

5983. They are content to regard it as an experiment?—Yes, and they have already inquired for seed, and will plant more next year.

5984. Have you had anything to do with the Imperial Institute in London about cotton?—No, except that I believe we have sent them a few samples to get a report on the quality.

5985. Because they get reports for the various parts of the Empire and consult brokers as to commercial values, &c. Have you received their reports?—No.

5986. But you sent them samples?—Yes. I had a report immediately on that.

5987. Do you get the *Bulletin* of the Imperial Institute sent to you?—Yes, we get it in the Library.

5988. **(Mr. Sinclair.)** Did I understand you to say that you thought tobacco-growing was more profitable than cotton?—I think so, on the average.

5989. One of your difficulties in regard to tobacco-growing is to find a market, is it not?—Yes, that seems to be the difficulty at the present time.

5990. Is it the case that there is a large proportion of the last crop stored locally?—There is a considerable quantity in Rustenburg, but there is a combination of difficulties which may require a bit of explaining. For the past year or two we have had severe droughts. We have had two years with no rain at the right time, and the crop of tobacco grown twelve months ago is the one which we have a considerable quantity of in the warehouse. It was grown principally from January to April, and was housed when the winter months came on, so it did not have the proper sunshine to mature it

properly, and consequently a lot of it cured out green and dark-coloured, whereas if it had cured out yellow, as the tobacco did in former years, there would have been a ready market. The market is fairly good for bright tobacco, but they have an over-stock of this cheap grade.

5991. You do not think that the result will be that less tobacco will be grown during the next few years?—No, I do not think it will seriously alter the crop for the next few years. Each year we have an increased import of tobacco into the country. We have more than 1,000,000 lbs. of tobacco imported each year, and that would indicate that we had an under-supply, as I think we have, of the higher-grade stuff. We have about 1½ million lbs. of cheap-grade tobacco in the warehouses at present.

5992. How long do you suppose it will take to work that off?—I think about twelve months in view of the fact that they have had another bad year on the top of the last one.

5993. **(Chairman.)** How much cotton do you think will be planted next year?—It is rather hard to say, because it is impossible to predict what the seasons will be like, but I think there will be about the same as this year, that is 8,000 to 10,000 acres possibly.

5994. Does that include the coast districts?—No, because I do not reckon on a great deal being planted there. It might be 400 or 500 acres.

5995. Do you consider then that the upland districts are more suited to cotton than the sea coast districts?—Yes, that is the immediate sea coast, because on the coast it is very windy. But 20 miles inland from East London and in the Transkei there is magnificent land for cotton and every indication that cotton will do extremely well.

5996. You said it pays less than tobacco. Does it pay more than other payable crops?—I think it would pay better than mealies on the average.

5997. Is it suited to the same lands as fruit-growing?—Yes, very much the same, that is citrus fruit-trees, not apples.

5998. Would it be more payable than citrus fruit?—No, I do not think so, but I may explain that the advantage of cotton is this, that you can grow cotton on large areas in the country where you cannot grow citrus fruits, because you have no need of irrigation to grow cotton, whereas you must have irrigation to produce citrus fruits.

5999. Compared with the Southern States of America what is the cost of labour here for cotton How do the figures you have given us compare with your experience of the Southern States of America?—So far as the labour itself is concerned it runs pretty much the same. We pay a little more in America for our labour, but we get four times as much for it.

6000. How does it compare in regard to payment for result?—I think we can get better results in America, because even if we paid twice as much we get four times the result. In this country we hire a raw Kaffir, for example, and put him to look after one acre of tobacco and sometimes two Kaffirs to look after one acre, whereas in the States each individual, whether white or black, would handle four or five acres of tobacco.

6001. Then the remuneration of the men here is half what it is in America?—Yes, about half.

6002. **(Mr. Garnett.)** Is it as high as that. You said 1s. a day. But in Texas they pay a great deal more than that surely?—Not all the year round.

6003. But for pickers in the picking season?—Yes, just in the picking season they might pay more.

6004. How has the plant stood up in these extreme droughts against pests?—The insects have not troubled them seriously through the drought.

6005. What pests have you?—The red stainer gives us the most trouble.

6006. Have you the boll weevil?—No. Another pest is the boll worm, not the boll weevil. In some parts of the country we have not been troubled and in others we have. But we find this red stainer in every part of the country as soon as we plant our cotton. But if we get our cotton planted fairly early we get it matured without much damage.

6007–21. **(Chairman.)** In ten years' time would you look for a large production of cotton in South Africa?—Well, there is a chance. It all depends on the farmers. The farmers in this country, you know, do not get at the work quite as hard as you would like to see them. They take it rather quietly and depend on the natives to a certain extent.

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APPENDIX I.

Johannesburg, Friday, 3rd April 1914.

EVIDENCE given by Mr. REGINALD R. SMITH, Cotton Expert, before a COMMITTEE of the COMMISSION, consisting of Sir RIDER HAGGARD and Mr. T. GARNETT.

(Witness.) I acted as manager to the Cotton Growers' Association on the West Coast of Africa in the Nigeria hinterland. I have also farmed in this country. I spent this last year in the East London district with the intention of studying the question of cotton-growing there. I am of opinion that the coastal belt extending from Port Elizabeth to Natal should prove an excellent district for the production of cotton.

1. **(Sir Rider Haggard.)** You have read the evidence of Mr. Scherffius, and do you confirm generally what is there said?—I wish in the first place to make a slight correction in connexion with Mr. Scherffius's evidence. He refers to the action of the British Cotton Growing Association in the Zoutspansburg district as causing an injury to the industry and the farmer. I would like to point out that the British Cotton Growing Association were not operating up there, but a company altogether independent of the Association, which was purely a commercial undertaking. The British Cotton-Growing Association were not responsible for what occurred.

I went to East London, having heard that there excellent cotton had been produced. I put forward

the suggestion for the formation of an Association on the lines adopted by my old Association, that is to say, I was satisfied with the cotton possibilities of the belt, having seen excellent specimens of cotton, some of which specimens had stood for from nine to twenty years.

This cotton is the old Orleans cotton, some of which plants I found to be still bearing exceptionally heavy crops. I came to the conclusion that this district can produce an excellent cotton, giving higher yields than any district I have yet visited.

2. **(Mr. Garnett.)** When I was in East London I went out some 25 miles to the farm Anglers' Home, belonging to Mr. Pickstone, where he has some 25 acres under cotton in the first year. You do not happen to have been through Mr. Brown's land?—No. He came into the district just about the time I left it. I have correspondence from Mr. Pickstone, who was quite prepared to support an association on the lines I put forward.

3. Are you speaking for the Transvaal? — No. I speak for the coastal district. In the Richmond district of Natal, which I visited last year, efforts were being made to introduce cotton. As regards climate and soil it is a very suitable region for the growth of cotton. Rainfall comes at the right time for planting, and the dry season at the right time for picking.

4. Have you formed any opinion as to the best variety of cotton to grow. You know the great demand now is for a staple 1½ inches long. There is a great scarcity of American cotton of that length, 1½ inches or roundabout. Have you arrived at any conclusion as to what would be the best cotton to grow?—We have two cottons that give about that length of staple. One is the American Toole and the other is the Nyassaland Upland. From American Toole an estimated net profit of 22*l.* per acre was obtained last year at St. John's, while Nyassaland gave an estimated net profit of 16*l.* 12*s.* per acre.

The results of the experiment carried out under the Government expert's supervision at Port St. John's are as follows:—

	£	*s.*	*d.*
Sea Island:—			
1,369 lbs. seed cotton per acre, at 3*d.* per lb.	17	2	3
Less cost of production	3	10	0
Estimated net profit per acre	13	12	3
Mitafifi:—			
1,285 lbs. seed cotton per acre, 3*d.*	16	1	3
Less cost of production	3	0	0
Estimated net profit per acre	13	1	3
American Toole:—			
2,067 lbs.	25	16	9
Less	3	10	0
Estimated net profit per acre	22	6	9
Nyasaland Upland:—			
1,548 lbs. seed cotton, at 3*d.*	19	12	0
Less	3	0	0
	16	12	0
Cleveland Big Boll:—			
1,010 lbs. seed cotton, at 3*d.*	12	12	6
Less cost production	2	15	0
Estimated profit per acre	9	17	6
Herlong:—			
810 lbs. seed cotton per acre	10	2	6
Less	2	15	0
Estimated profit per acre	7	7	6

The lowest net profit per acre obtained was 7*l.* 7*s.* 6*d.* Had the better cotton been ginned and sold as lint a bigger price would have been obtained than when sold as seed cotton, much of the lint changing hands in Liverpool at 1*s.* per lb.

The value of cotton seed, too, is not yet recognised, and is not as a rule taken into account when estimating the value of the crop.

At present Liverpool selling prices, that means American bale and a half to the acre or roundabout.

Sea Island, although quoted in above list at 1,369 lbs., has produced up to 3,000 lbs. per acre of cotton.

5. What about lint?—It generally runs about 27 per cent. lint. Egyptian has done very well, and with Egyptian cotton it seems to be the custom in the East London district to ratoon and grow as a triennial. The plants of the old cotton, which I was informed were from nine to twenty years old, were still healthy and very heavy in fruit. Referring to this cotton, some fifty years ago an old report puts the net yield per acre at 613 lbs. lint cotton, which roughly represents 1,830 lbs. seed cotton, a yield which would be regarded as "big" on the best plantations in America.

6. Can you say the length?—It is seven-eighths inch harsh –

7. The demand for cotton as you know is for 1½ inch staple. There is a great opening for cotton at a reasonable price. How does it resist pests?—The fact that the cotton had stood for such a number of years untended was sufficient evidence of its immunity from pests. Outside the Government station the only pest I found was the stainer.

8. Are there no boll worms?—No; boll weevil is unknown in these parts.

9. With regard to labour, do you think there would be much difficulty in getting native labour to take up cotton-picking. I do not think so. Once the crop was introduced on to the farms there would be no difficulty. I may say that in that district you are surrounded with natives. Pondoland on one side and Kaffraria on the other are native reserves. Once introduced on the farms these native districts would also open up new fields for cotton. In other parts of the world it is a favourite native crop. On some farms in the immediate vicinity of the towns labour is difficult to obtain, but on the outside farms I do not think there is the slightest trouble with labour.

There are considerable areas in this country suitable for cotton-growing, should it be proved a profitable crop from an economic point of view. It is a more attractive crop than any other. My opinion is that it only requires to be introduced on scientific lines to the farmers. In travelling about in the country I always found the farmers anxious for information on the crop, and they could, I believe, be easily induced to adopt the crop, but no farmer will take on the experimental work himself. This is the duty of the Government. It is a profitable crop, but until recently no local market existed for small lots, and as no farmer will take up the cultivation of a *new* crop on a large scale, that is, until it has been tested, the crop has been almost entirely neglected.

On many of the farms that I visited I found the soil to have become exhausted by continual cropping of maize year after year; in some cases they had to fertilise heavily with superphosphates in order to obtain a crop of any sort. Cotton would prove of great benefit either as a substitute for or in a rotation with maize. It is less exhausting, and as many of these farms are remote from the railway, it is a very desirable crop, owing to its comparative value when considered with its weight. I found, sir, that the farmers of these districts were anxious to take to the crop. Had they a guaranteed price for the product, which I believe the British Cotton Growing Association would grant, it would undoubtedly assist in the establishment of the crop.

The oil is a valuable product, and after its extraction you have still the cake, also a valuable commercial commodity. The fibre, which is the lightest part, is transported, the seed is retained, and if fed to cattle returned to the land. Thus the fertility of the land is maintained. In the exportation of maize Africa cannot but lose in fertility.

10. Would you agree with this as a general proposition, that it would be a misfortune to proceed too quickly or on too large a scale, unless it was absolutely demonstrable that it was going to pay the farmer better than tobacco, mealies, or any other pro-

duct of the soil?—I would not introduce the crop on too large a scale on individual farms; I would suggest the *gradual* introduction in small lots of, say, 10 to 20 acres on each farm.

11. Of course, you have read the correspondence between the Cotton Growing Association and the Commonwealth and Queensland Governments. Do you favour an attempt being made to make such an arrangement with the British Cotton Growing Association to give the grower a guaranteed price for a number of years, and after deducting the cost, insurance, freight, and landing charges at the other end, to return any surplus. In that case the British Cotton Growing Association is standing the loss, but the farmer is in the position of having a guaranteed price, and in addition he gets any profit over and above that price, as the loss, if any, is to be borne by the Association?—That certainly would assist in the establishment of the industry.

12. Do you think it would be a good thing?—I do think so. It would be an excellent thing for South Africa to come to such an arrangement with the Cotton Growing Association. I should like to point out also that in introducing a crop like cotton, which is a very valuable crop, it would tend to split up large farms into small ones. Cotton is a small man's proposition. For some districts such as the Albany and Peddie, excellent agricultural districts, but remote from the railway, cotton would be a splendid crop. The difficulty of transport in these districts is very great, and many of the fruit and grain crops do not pay to transport to the railway. At present, too, they are tied up with the East Coast fever regulations, and many farms there are going gradually into the hands of the natives. It is my opinion that cotton would tend to save these districts, the freight on the fibre being such a small item. In 1912 in the outside districts maize sold at 10*s.* per bag, many farmers having lost their stock were paying the Government 3*s.* per bag for transport. Cotton could stand this high charge but maize could not.

12*a*. I gather that you are an enthusiast in cotton-growing.—The figures obtained are exceptionally high. In America, 200 lbs. of lint or a net profit of 3*l.* per acre is generally considered a fair average. Even in Egyyt, a country of wonderful fertility, perennially fertilised as it is by the flood waters of the Nile, a net profit of 17*l.* per acre is considered high.

To compare the price of land in America, land in the cotton belt commands 20*l.* per acre. In Egypt it fetches from 60*l.* to 100*l.* per acre, while here on the coast the ruling price is from 2*l.* to 3*l.* per acre. My object in putting forward the scheme for the formation of an association was to obtain the co-operation of the farmer, the Chamber of Commerce, and of the merchants, and later that of the British Cotton Growing Association, the shipping company, and the Government. I obtained the co-operation of a number of farmers and also of a number of gentlemen in East London, but unfortunately our labour troubles upset the whole thing.

13. Have you satisfied yourself that cotton can be grown commercially at a profit in South Africa?—I have not grown it in South Africa, but I have grown it on the West Coast of Africa, north of Lagos, where I was in charge of an experimental station. Money has been spent liberally spent in tropical Africa, but might I point out that the money which is being spent in these Colonies of the tropics, in conjunction with Government subsidies, is being spent in what is, and can never be other than, purely native countries. On our coastal belt the farms are of considerable extent, while the area cultivated is very small, and I hold that were we to introduce cotton it would revolutionise the whole district. Other countries of Africa, countries without our advantages, are attracting money for the purpose of exploiting their cotton districts, and of this I would like to attract some to South Africa. I would particularly draw your attention to the fact that here you have cheap soil, you have a suitable climate, and abundant labour, the three things requisite.

Another point worth noting, I spent some time on the Mission Station of Lovedale, and Mr. Henderson, the principal, was quite prepared and anxious to co-operate in such a scheme, on account of the fact that not only would it introduce into a huge native population such as Kaffraria and Pondoland a new industry, but you would make the industries of weaving and spinning possible in those native districts; the cotton could be planted along with the maize; it is not a system which I recommend, but it is a method which suits the native farmer. That, in the aggregate, would contribute very considerably to the amount produced.

14. Have you laid your views before the Agricultural Department, and what have they answered you?—They are prepared to assist to the extent of a subsidy on the pound for pound basis, but the whole matter is at present hung up on account of the fact that it is too late for planting this season.

APPENDIX II.

(A)

NOTES by Mr. T. GARNETT on a VISIT to the CHALUMNA COTTON PLANTATIONS, "ANGLER'S HOME" FARM, EAST LONDON, the property of Mr. H. E. V. Pickstone, 16th March 1914.

This estate is situated on the banks of the Chalumna River, about 3 miles from its mouth and 25 miles distant from East London.

It consists of some 1,000 acres, of which 300 are rolling down land, clothed with verdant herbage, and well adapted for grazing cattle and the raising of grain crops.

The remaining 300 acres are alluvial flats of very rich chocolate soil, lying along the banks of the stream.

About 100 acres have been put under cultivation by Mr. N. F. Howe Browne, Mr. Pickstone's managing partner, viz., 25 acres under mealies, 15 acres under cow peas, 60 acres under cotton

The varieties of cotton planted are "Allen's Long Staple" and "Webber," from which it is hoped to raise fibre 1⅛ inches in length.

To shelter the plants from the south-east gales of October and November, bananas have been planted as "wind-breaks." On the north-west the range of downs affords a certain amount of protection to the low land.

All the plants looked healthy and free from pests, and the ground was very clean and clear of weeds.

The more forward plants were the "Allen Long Staple," mostly just coming into flower. Picking was expected to take place in May.

I opened some immature bolls, which contained silky cotton, promising long staple.

"Angler's Home" was chosen by Mr. Pickstone and Mr. Howe Browne—after careful examination of many properties—as being eminently suitable for cotton-growing, and their experiment will be watched with sympathetic interest by all who wish to see an increase in the production of the staple.

(B)

REPORT by Mr. N. F. HOWE BROWNE on the FIRST CROP of COTTON from the CHALUMNA COTTON PLANTATIONS, EAST LONDON.

(*See page 329: the Report arrived too late for insertion on this page).*

APPENDIX III.

EXTRACT FROM STATEMENT HANDED IN BY THE TRANSVAAL AGRICULTURAL UNION.

(*For evidence of the representatives of the Transvaal Agricultural Union on "Animal and Agricultural Produce," see page 254, and for other portions of their statement, relating to "Irrigation" and "Fruit" see pages 52 and 320.*)

Cotton.

Experiments have been made in respect of cotton-growing, but the data to hand are not sufficiently complete to enable a judgment to be formed as to whether or not the crop could be made a paying one in the areas which are suitable for its cultivation. One of the main factors in the securing of success is that of being able to rely upon a sufficiently cheap and efficient supply of labour.

Drawbacks.

Those who have experimented with this crop state that, though they might be able to overcome the labour difficulties, they are still placed at a disadvantage owing to the fact that railway charges render it impossible for them to dispose of their cotton seed, which would find a ready market in the Province. The same remark applies to growers of soya beans who happen to farm at a distance from the centres where their products could be used for the extraction of oil. One such grower, who otherwise regards the crop as a profitable one, has given up its cultivation.

Another serious drawback to the agriculturist is the impossibility of making a profitable use of the enormous amounts of kraal manure which have been deposited during the periodical treks of stock farmers for many years past.

(c) Forests.

CAPE OF GOOD HOPE.

Cape Town, Wednesday, 25th February 1914.

Mr. CHARLES E. LEGAT, Chief Conservator of Forests, Union of South Africa, called and examined.

6022. **(Chairman.)** You have been good enough to write to the Commission giving details as to the forests of the Union?—Yes.

The following is the communication referred to:—

Forest Department,
Office of the Chief Conservator
of Forests, Pretoria,
8th January 1914.

1. *Extent of Indigenous Forests and Plantations.*—In comparison with the size of the country the indigenous forests in South Africa are very small, not amounting to more than $\frac{1}{10}$th per cent. of the total area. The area of the Union of South Africa is 473,954 square miles and of this only approximately 450,000 acres are covered with indigenous forests. The area planted with exotic trees up to the 31st March 1913 amounted to 61,062 acres, of which 50 per cent. consists of pines and firs.

2. *Locality of Indigenous Forests.*—The forests lie mainly along the mountain ranges within a couple of hundred miles of the southern and south-eastern coasts; further inland they occur in localities having a high rainfall.

3. *Yield of South African Forests and Import of Timber.*—The output of the forests is not nearly sufficient to meet the needs of the growing population, as will be seen from the following table showing the quantity and value of the various unmanufactured timbers imported into the Union during 1912:—

	Cubic Feet.	Value.
		£
Teak	93,586	29,361
Hickory	76,946	10,177
Jarrah	218,505	13,401
Mahogany	11,318	3,111
Oak	137,116	18,231
Pine	7,208,590	399,309
Poplar	98,785	14,194
Walnut	101,320	12,706
All other (not otherwise described).	2,243,590	117,763
	10,189,756	618,253

4. The exports of South African woods during 1912 were:—

	Value.
	£
Boxwood	3,593
Stinkwood	55
Teak	4
All other	38
	£3,690

Boxwood is mainly used by cotton factories in England in the manufacture of bobbins.

5. The present output of timber from the State forests of the Union is roughly 1,000,000 cubic feet per annum.

6. *Utility of South African Timber.*—The woods of the indigenous species are highly esteemed for wagon and carriage building, and are found to surpass imported woods for durability and strength. The chief wagon woods are stinkwood, white pear, assegai, ironwood, flat crown, and yellow wood, while yellow wood has been and still is used to a considerable extent for purposes for which pine timber is used in Europe, such as flooring and ceiling. Yellow wood is also very largely used in the manufacture of sleepers, its lightness, power of absorbing creosote, and of holding spikes make it specially suitable for sleepers. Sneezewood, the most durable of all woods, meets to a large extent the demand for fencing poles. Stinkwood, however, is the most valuable timber in Africa, for which the demand is greater than the supply. Besides being used in wagon-making, it is most highly esteemed for furniture-making and panelling, on account of its beautiful appearance and extreme toughness. Articles of stinkwood furniture become handsomer with age. Good stinkwood will fetch 10*s.* to 12*s.* a cubic foot at the Cape.

7. *Forest Department as Employer of Labour.*—Some 1,200 to 1,500 people directly derive their livelihood from the State forests, and if allowance is made for their families, three to four times as many are dependent upon them.

8. *Management and Control of Forests.*—Until the last session of Parliament, the forests of the several Provinces of the Union were administered under different Acts. The Union Forest Act became law in the 1913 session, and it provides for the acquisition of land for forest purposes, for the demarcation of forest reserves and, generally, for the regulation of the forests of the State. It prescribes what acts shall be punishable and the forms of punishment.

9. With this Act as the basis for the management of the forests, the objects of the Department may be briefly described as follows:—Firstly, to conserve the indigenous forests and utilise their products in such a way as not to impair, but rather increase, their future productivity. Secondly, to increase the production of timber in the country by the formation and proper management of plantations of exotic trees—the eucalypts of Australia and pines of Southern Europe, California, and Mexico. The earlier plantations are beginning to yield returns from thinnings, but mature timber will not be ready for cutting for some years. Thirdly, to encourage the general afforestation of the country by tree-planting by farmers and others for purposes of shelter, fuel, ornament, &c., and for these purposes forest trees and seeds are sold at very low prices. During the past financial year 2,831,074 trans-plants were sold from Government nurseries and 395,763 issued gratuitously.

10. *Staff.*—The executive forest staff consists of 149 officers on the permanent establishment, of whom 36 belong to the senior staff and 113 to the subordinate ranks. The senior staff is now being recruited, as far as possible, from students of recognised European and American forest schools, while training for the subordinate forest officer is provided at a forest school at Tokai, in the Cape Peninsula.

The Wattle Industry.—Special mention should be made of this industry, which, although an important one in the Union at the moment, promises to become considerably more so in time. Wattle cultivation has been almost entirely carried out by private enterprise in Natal. Probably there are more than 250,000 acres of wattle plantation in South Africa. The amount and value of bark exported annually is as follows:—

Year.	Lbs.	Value.
		£
1906	33,215,466	89,374
1907	54,478,492	139,397
1908	55,661,949	134,563
1909	80,127,399	194,699
1910	92,610,026	219,433
1911	111,205,265	289,557
1912	118,219,023	283,060

The following return shows the centres to which wattle bark was actually exported during 1912, viz.:—

From	Country.	Quantity.	Value.
		Lbs.	£
Natal	Europe	100,213,684	243,287
	Australia	16,072,668	35,890
	New Zealand	1,475,306	2,975
	Other countries	99,112	270
Cape	Europe	353,773	623
	New Zealand	4,480	15
	Total	118,219,023	283,060

It is interesting to note the large shipments to Australia, the home of the black wattle (*Acacia decurrens, var. mollissima*).

The prices for South African bark on the European markets during 1912 were:—

——	Highest price.	Lowest price.
Natal.	£ *s.* *d.*	£ *s.* *d.*
Chopped bark	8 0 0	6 16 3
Ground bark	8 5 0	7 7 6
Cape.		
Chopped bark	7 5 0	7 5 0

Very little has been done in the export of bark by the Government, as Government plantations have been formed primarily for the purpose of protection of indigenous forests from fire. The main market for wattle bark is Germany, and it obtains its supplies largely from the German possessions in Africa and from the Union. From recent reports it would appear that the German market is being glutted, with the result that prices will, no doubt, suffer considerably. The time appears, therefore, to have arrived to find other markets—within the Dominions and out of them—for wattle bark, and this, no doubt, is a matter which, in view of its importance, will have the Commission's careful consideration in the work which it has in view. A further point for consideration in regard to this industry appears to be the need for exporting the extract of the bark and not the bark itself.

6023. **(Sir Rider Haggard.)** Your area of forests and forest lands is very small?—Yes.

6024. One of the smallest of any country, is it not?—Yes, I should think so.

6025. Your forests lie, I suppose, in kloofs and mountains?—Not entirely. They also occur, especially at Krugana, on the flats between the mountains and the sea.

6026. Have the forest lands been much wasted?—Yes, a good deal has been.

6027. Has it been destroyed?—Very much so, especially any that has fallen into the hands of the natives.

6028. Is a stop being put to it now?—Yes, as far as possible.

6029. What you have now is properly conserved?—Yes.

6030. I observe that you import an enormous amount of timber?—Yes, we do.

6031. There is, then a large demand for timber if it could be produced locally?—No doubt of it.

6032. Among these South African timbers you have some which are very valuable, I believe?—Yes, such as stinkwood and yellow-wood. Probably stinkwood is the most valuable.

6033. There used to be a beautiful wood called beukenhout. I think?—There are several species of trees which pass under that name.

6034. And these woods you are now conserving as best you can?—Yes.

6035. Are they of slow growth or rapid?—Slow.

6036. Can you replant them or do you trust to natural afforestation?—To natural afforestation mainly.

6037. They will re-afforest themselves?—Yes, they do so.

6038. How long does it take for one of these indigenous valuable woods to come to a profitable cutting size?—We have no definite information, but it is probable that, in the case of stinkwood, it would take from 80 to 100 years.

6039. Which is not more than an oak?—No.

6040. Therefore, it is a valuable wood to increase?—Yes.

6041. And you are trying to do so?—Yes, as far as possible.

6042. Sneezewood is one of the most durable, is it not?—Yes.

6043. As durable as teak?—Quite as durable in the ground, I should think.

6044. Does your Forest Department employ a large amount of labour?—We have a good many people. The white staff of the Department is at present about 200.

6045. And a good many natives as understrappers?—The people I refer to are on the establishment. In addition we employ natives as forest guards, who are not included in the number I have given.

6046. It employs many men?—Yes. It should be understood that these figures apply only to the staff of the Department. About 1,500 people depend on the forests for a livelihood.

6047. Are you planting at all?—Yes, a good deal.

6048. What do you plant?—Pines and eucalyptus principally.

6049. Which pines do you plant?—In the western area we plant the pines from the Mediterranean countries, such as the Cluster pine and Aleppo pine, *P. insignis* from California, and *P. Canariensis* from the Canary Islands. Inland, *P. longifolia* from India and Mexican pines are being tried.

6050. Which do the best?—In this area you will see the Cluster pine and Stone pine are naturalised.

6051. They are not the best timber, are they?—No, but they are suitable for many purposes.

6052. They are naturalising themselves?—Yes.

6053. How many acres a year do you plant?—About 10 square miles a year.

6054. And you do that every year?—Yes, lately.

6055. On Government ground?—Yes.

6056. Are you going to increase?—Perhaps slightly, but we do not intend to go ahead too quickly.

6057. Are you getting any returns?—From thinnings we do. We have no final returns except in the case of one gum plantation. That was planted in 1876 and cut over in 1892 and 1893, and it is to be cut over again very shortly, but it is only a mining timber plantation.

6058. Do you expect this policy will be a financial success?—I think there is every reason to suppose so.

6059. Therefore it might be increased with advantage?—Yes, I think it would be wise to go on steadily.

6060. How about wattle?—It is grown very largely, especially in Natal and certain parts of the Transvaal, and in the Eastern Cape Colony, also the Transkei. In these places it thrives.

6061. The bark is used for tanning?—Yes.

6062. And is the wood used for props?—Yes.

6063. Is the market limited for wattle?—Lately there have been signs that the market is going down. Production is going up, so much so that there has been a tendency for prices to drop.

6064. Is it your conclusion that perhaps enough wattle has been planted and it would be wiser to devote attention to other kinds of trees?—Unless the markets can be improved it would be, certainly.

6065. For timber generally in South Africa—conifers or hard-woods—I suppose there is a large market?—Yes.

6066. And one in excess of any likelihood of its being fully supplied for a long while to come?—Yes.

6067. Therefore it would seem that afforestation is a good and a sound policy?—Yes.

6068. **(Sir Jan Langerman.)** What do you do in regard to extending your plantations of indigenous trees?—Indigenous forests regenerate themselves. The area under natural forest is cut over in such a manner that the young growth takes the place of the old growth.

6069. On the same spot?—Yes.

6070. You do not plant it?—Not extensively. We surround our natural forests with wattle belts to protect them from fire, and we have found that the natural bush spreads into the artificial area and extends.

6071. Seeds blow away?—Yes, and birds carry them.

6072. In view of the valuable wood we have, would it not be advantageous to create plantations of indigenous trees?—Yes, it would, but we find that these trees are very shy of being planted out in the open. They like shade. We have planted them here and there experimentally outside the forest areas without much success.

6073. Where does the wood they use for fruit boxes come from?—It is mostly imported from Sweden.

6074. Could we not utilise ours?—We find the *insignis* pinewood is suitable, but the quantity available at present is insignificant.

6075. What is the tendency among the public? Is it to plant trees or do not they care to do so?—I think there has been a very great deal done by private enterprise in the last few years. Last year's annual report showed that we sent out to the public 3¼ million trees to plant for shelter and fuel purposes, and to supply rough timber for farming purposes.

6076. **(Sir Rider Haggard.)** You do not distribute fruit trees?—No.

6077. I see you import a lot of teak, and there is only a very small export. Is that a re-export?—No, I do not think so. We have no true teak. It is probably South African—not the true teak—that is referred to.

6078. What is the South African teak?—I think this refers to the wood of a strychnos.

6079. **(Mr. Lorimer.)** I notice you speak very highly of the value of stinkwood?—Yes.

6080. And there has only been 55*l.* of it shipped?—Yes, because it can all be used here locally.

6081. Is there none goes abroad?—None. All of it is used on the spot.

6082. It is sold for 10*s* and 12*s*. per cubic foot, I see?—Yes, in Cape Town.

6083. A high price?—Yes, but if we can get that here, it would cost still more across the water, and it is very heavy to transport.

6084. In England, people would pay that for high class wood?—I am sure there would be a very ready sale if it were available, but there is not sufficient for our own requirements.

6085. Is it a quick-growing timber?—No, not very.

6086. Are you planting it?—It grows naturally in the forest. It reproduces well. It grows very strongly from stool shoots. When it is cut over it coppices very freely. It also seeds itself.

6087. There is not much likelihood of any quantity being exported?—I do not think there is any hope of it. I think the demand here will always be big. It is a very favourite wood for wagon work. Farmers prize it very highly, and it is very highly esteemed for panelling and furniture.

6088. For farm wagons it is hardly worth paying that price?—It is very durable wood, and I suppose farmers think it pays them better in the long run.

6089. Is there any other timber that brings such a price?—No, it is the most valuable we have.

6090. I suppose you have been asked about wattle bark; why does so little go to England?—English tanners will not be bothered with bark in the rough. They want an extract. They must have solid extract, and so most of it is sent to Germany. Now there is a tendency for the supply of bark to exceed the demand. Bark is being sent from here, British East Africa, and German East Afriea, and there are signs of the market getting overstoeked.

6091. Have you any faeilities to extract?—No, I am told that the growers in Natal are giving the matter attention, and are also trying to get markets in America and other plaees for the bark.

6092. Supposing you extracted it, would what remained do for firewood?—I should not think so. I do not think the by-product would be of mueh value.

6093. But you would save a good deal in freight?—Yes, and, of course, it would be more acceptable to the buyers.

6094. You would get a wider market?—Yes, I believe so.

6095. **(Mr. Tatlow.)** Is yellow-wood very suitable for railway sleepers?—Yes.

6096. In the Union there must be a great demand for wood for sleepers?—Yes.

6097. To what extent can you supply the Railway Department with sleepers?—Unfortunately we cannot send many from the Knysna forest. I think we send from 75,000 to 100,000 a year of the yellow-wood sleepers. The wood is used for building too.

6098. Does the railway require to import sleepers?—Yes, a great deal.

6099. Seeing that this wood is so very useful are you doing anything to cultivate its growth for supplying the Railway Department?—It grows in the forest and it regenerates itself naturally. The forests are cut down according to the selection system in sections. A part is cut this year and that part will then be shut for thirty or forty years. The forests are worked on a rotation.

6100. Is anything being seriously done to supply the Railway Department?—We are planting pines and eucalyptus, in sleeper plantations. The Railway Department put us in funds and we plant on their behalf trees suitable for sleepers—half, say, of conifers and half of eucalyptus.

6101. How long does it take the yellow-wood to reach maturity?—It is very slow-growing. It is estimated from two hundred to two hundred and fifty years. That rather detracts from its usefulness as a plantation tree.

6102. Is there a Wattle Growers' Association?—Yes.

6103. Are they active?—Yes.

6104. They complain about the shipping freight on wattle stopping the export?—Yes.

6105. Has that been reduced?—I am not sure.

6106. It has increased from 9,000*l.* a year to 283,000*l.* a year?—Yes.

6107. You have had no complaints of freights?—I am not sure if the freight was adjusted at the time of the new agreement.

6108. You have had no complaints?—No.

6109. You mentioned plantations of eucalyptus: where are you making them?—In various parts of the country—mostly along the coast. We have some places inland too.

6110. Do you plant on the Witwatersrand at all?—There is a lot of gum plantations, but nearly all belong to the mining houses.

6111. What is the growth of the eucalyptus here compared with other countries?—Compared with Australia, I imagine they grow as fast, if not faster. They grow extremely well and freely.

6112. **(Sir Rider Haggard.)** Does your Department receeive all the hearty support of the Government?—Yes, every encouragement.

Cape Town, Thursday, 5th March 1914.

Senator the Hon. MARSHALL CAMPBELL called and examined.

(*For the evidence of this witness on "Mail Service and Freights" and on the "Sugar Industry"* see *pp.* 75 *and* 183.)

6113. **(Chairman.)** You are prepared to give some evidence about wattle?—My neighbour, Colonel Leuchars, is in a very big way in the wattle industry. I grow some wattle, but not to any great extent.

6114. Can you give us any idea of the development which you think probable in the wattle industry?—The development is unlimited provided we can get the market at home.

6115. What is it used for?—It is used for tanning leather.

6116. What is the price of it in London?—7*l.* 5*s.*

6117. That corresponds with what price in previous years?—With 13*l.* when they first started. We are now exporting wattle to Australia; I think they have to pay 8*s.* a day for labour. They have a minimum wage, whereas we have coloured labour.

6118. What countries do you compete with in this wattle business?—We compete principally with South America. One company alone in South Ameriea is turning out 140,000 tons a year from some forest there.

6119. Why do you say that the development is unlimited?—It could be unlimited if we got the English market.

6120. At what price does it pay you to grow the stuff?—It pays at the present low price of 5*l.* 16*s.* Some farmers make it pay and some do not.

6121. What is the mode of cultivation?—Personally I use steam ploughs.

6122. Is it a certain crop?—Yes, very fair.

6123. **(Mr. Campbell.)** Does South America compete in wattle or in some other tanning material?—It is some other material.

6124. They do not grow wattles there?—No.

ORANGE FREE STATE.

Bloemfontein, Friday, 20th March 1914.

Mr. ARTHUR EMMANUEL FICHARDT. President of the Bloemfontein Chamber of Commerce, called and examined.

(*For the evidence of this witness on "Fruit," see p.* 318.)

6125. **(Chairman.)** You have a large experience in connexion with trees and the danger to which they are exposed from pests?—Yes, we have practical experience, unfortunately.

6126. Will you please tell the Commission the facts?—The facts, so far as we are concerned, are as follows: My father started about sixty years ago planting trees in this part of the Colony. In those days there were practically no trees, and it was a particular hobby of his. We have a farm about four miles from town, where we have about 100,000 trees growing. The trees suffer frequently on account of drought, and we have also, in times gone by, lost very heavily through frost. The frost does not trouble us any more because we have frost-proof trees. The trouble now that we have is in regard to a certain insect called the borer, and I think we shall lose every tree on the farm unless something can be done to destroy it. It would be quite a simple matter for the Commission to go out to my place and see the trees that are affected, and, if necessary, I can have some of the insects preserved for the Commission so that they can be investigated.

6127. I do not think that we are competent to deal with them, but it would be of interest to the Commission to see the trees. What measures have been taken to protect yourself?—Up to the present nothing has been done. We have tried spraying, but that does not help a bit because the borer is underneath the bark. The only thing that we can do is to cut down the trees and destroy them and so prevent the borer from moving out.

6128. What advice has the Government given you?—Practically none up to the present. The only information they have given us is that the insect must have been introduced about four years ago and that is very little satisfaction.

6129. **(Sir Rider Haggard.)** I understand that nothing like it has ever been known in this country before?—No.

6130. Have you followed the life-history of this borer at all; have you tried to see what it develops into?—No, we presume it develops into a moth: I believe the Government have some details in regard to its development.

6131. Have they not told you?—No.

6132. It is important for you to know?—Yes.

6133. Have you sent specimens of this borer to the Imperial Institute?—No.

6134. Might I suggest it would be a good thing to send some specimens to the Imperial Institute and ask their opinion: they have the assistance of scientific people who can report on the matter?—Yes.

6135. What is the rate of increase of this borer; could you say how rapidly it spreads?—Our first impression was that the trees were dying of drought; the idea was that the roots had struck rock, because it attacked our oldest and biggest trees, but when we examined the trees we found the bark was loose, and when we removed that bark we saw traces of sawdust discharge and holes made in all directions just under the bark.

6136. Did you suddenly see a number of trees in this condition or only one tree?—A few hundreds.

6137. That shows the thing must have been at work for some time?—Yes, the Government say about four years.

6138. Is this pest peculiar to your district?—We have never seen anything like it before.

6139. Does it affect pines?—No, the pine trees alongside the gum trees on this farm are not touched.

6140. Do you notice whether there is any great increase in the spread of these insects?—As far as we are concerned we are cutting down all the trees which are infested, but we cannot say whether they are increasing rapidly.

6141. What are the trees exactly which are attacked?—Principally the gums and the mimosa, that is the ordinary wild thorn tree.

6142. Does it attack the black wattle?—We do not have the black wattle tree.

6143. Does it attack any other trees?—It attacks some of the fruit trees, the peach trees show signs of the pest.

6144. Does it not strike you that it is a matter of such importance that it should be pursued without ceasing?—We are worrying the Government about it all the time.

6145. Otherwise all your timber and fruit will be destroyed?—Yes, the Government will have to appoint officials to investigate the matter.

6146. How long ago is it since you brought it to the notice of the Government?—It is about three years ago. Exactly the same thing applies to the pests that affect fruit trees. In my annual address to the Chamber for the last three or four years I have brought the matter up seriously, and we have interviewed the Government, but we have not got satisfaction. It is a very serious matter, because up to two or three years ago this district was magnificent for fruit, but now we cannot grow anything on account of the codling moth.

6147. Which trees are attacked?—The peach is the biggest sufferer, quinces are also being absolutely ruined.

6148. Will it attack the orange tree?—No, the orange tree suffers from scale.

6149. I would suggest that you communicate with the Imperial Institute about this pest, that is the borer. As regards the codling moth that can be stopped, as you are aware, by banding?—I have killed the pests in my own garden, but my neighbours are breeding them as fast as I kill them.

6150. I understand you desire some restrictive regulations?—Yes, exactly the same as in regard to scab. Our sheep used to be rotten with scab, but the Government enforced systematic and regular dipping, and we have no scab now. I maintain that if we had a similar regulation in regard to spraying, and if it was compulsory, we would be able to do something.

6151. You are asking the Government to pass a law making the proper treatment of infected districts compulsory under a fine?—Yes, the proper spraying and washing of all fruit trees should be compulsory under a fine.

6152. **(Mr. Campbell.)** Did you tell Sir Rider Haggard that this borer is confined to your particular locality?—No, I know it is also found some miles away, near our waterworks, in the ordinary mimosa tree.

6153. Over what area would that be?—That would be 20 miles from us.

6154. Do you know whether the thing attacks all kinds of gum trees?—I think every kind of gum tree, but I think it is more liable to attack the older trees.

6155. Have you communicated with the Australian Agricultural Departments?—No.

6156. It is an Australian pest?—Yes. We have communicated with the Government, and my brother, who is in Parliament, took the matter up, and he is going on with it.

6157. Do you not think that your best means of getting knowledge about this pest would be to communicate with the Australian authorities?—Possibly it may be.

6158. **(Mr. Garnett.)** Is there no theory as to whence this pest has been introduced?—No, we have no explanation at all.

6159. There has not been any importation of eucalyptus trees for planting?—No, we have not imported for the last forty years. We have our own seed on the farm.

6160. Does this pest attack the eucalyptus all over the Cape Colony?—We have not heard of it before.

6161. You said it attacked the older trees, and your first theory was that they were suffering from drought?—Yes.

6162. Can you say whether it attacks trees that are apparently beginning to lose their vigour and resisting power, or do you think that it is the attack of the borer which causes the trees to decline?—No, I think from the experience which we have gained that the pest attacks perfectly healthy trees, and the worm is the cause of the tree dying.

6163. You think it is the attack of the pest that robs the tree of its vigor?—Yes, on the older trees the bark is much coarser, and that gives them much more opportunity of getting in. On the younger trees the bark is clean.

6164. You have not pursued your investigations to see whether the trees which have been attacked have got down to the rock and are being robbed of moisture?—No, they are not down on the rock.

6165. **(Mr. Sinclair.)** Although this pest has attacked trees at distances of some 12 to 14 miles, has it got into other parts of the Union, as far as you know?—Not as far as we know, but I am afraid it will be nearly all over the country before the Government will attack it. I am afraid they will take the matter in hand when it is too late.

6166. United action and co-operation between the different parts of the Union would be most likely to bring pressure on the Government, would it not?—Yes, I think so.

6167. No representations have been made from other parts of the Union where the evil has appeared?—I do not know, but the trouble in South Africa is that the Government usually waits until the evil is too advanced before they deal with it. So far as the codling moth is concerned it could have been prevented from coming up as far as this if proper measures had been taken in time.

6168. Can you tell us the ages of the trees that have been attacked?—They are quite forty years old.

6169. You do not think they are losing vitality?—No.

6170. Has the drought, do you think, added to the evil?—I think it is possible that the drought may have encouraged this pest, which possibly lives better in dry weather than in wet.

6171. The fact that it does not attack the younger trees seems to suggest, does it not, that the loss of vigour of the tree makes it a more ready prey to the attack of this insect?—In regard to the younger trees the bark is clean, and the beetle has no chance of finding a lodgment, but with the old trees the bark is very coarse.

6172. In the case of the younger tree, also, I presume the sap, which is pungent, is more plentiful?—Yes.

6173. As regards the codlin moth, has the prevalence of this disease been brought about by careless cultivation?—No, it is brought here in boxes of fruit. The farmer buys a box of fruit, takes it out to his farm and throws the pips and skins away, and that is how the disease is distributed.

6174. The absence of regular cultivation and regular spraying has allowed the disease to spread?—Undoubtedly.

6175. **(Mr. Tatlow.)** Have you any definite and satisfactory information as to the extent to which this pest prevails in other parts of the Union, I mean the borer?—No, we have no information; we simply took the matter up with the Government.

6176. And they have not been able to assist you?—Unfortunately, since Union our Agricultural Department, which was formerly a very big one, was moved away to Pretoria, and we only have a couple of men, and for a long period we were without anybody here. The whole of the Agricultural Department was centralised at Pretoria.

6177. Did the Government send somebody to investigate?—They sent two men out to the farm, but we have not heard with what result.

6178. Did you complain individually or as a Chamber of Commerce?—Only individually.

6179. Is it not a matter which your Chamber of Commerce should take up?—The Chamber has not gone into these matters as a general rule. Agricultural societies have done so.

6180. Have you any agricultural society here which can help in regard to the matter?—Yes, we have. It is a matter they should take up, but I do not think it has been taken up seriously yet.

6181. You are not satisfied with the way in which your complaints have been treated?—No, we feel that the only time they will take it up seriously is when it is too late.

6182. **(Sir Jan Langerman.)** With regard to the moth, you say that as fast as you destroy the pest, your neighbours breed them?—Yes.

6183. Is your place within the municipality?—It is in the town.

6184. Could you not deal with that matter by municipal regulations?—No, I do not think it would be possible. You want legislation. Take the houses round about my place, there are peach trees there which simply grew up from the pip, the things have never been planted, they are simply breeding dens for moths and flies; we spray our trees, but it does not help.

6185. Would you suggest that all these centres, at any rate, should be municipally controlled?—I would suggest to the Government, if I could, local option. Mr. Pickstone, in the Thaba Nchu district, has been planting enormous numbers of trees, for instance. Let it be local option; if the whole district wishes compulsory spraying they should be able to enforce it.

6186. Do you mean the municipal area?—No, the municipality has not taken any action.

6187. Could they not take action?—Well, the municipality does not take any action.

6188. If the municipality of Bloemfontein could eradicate this disease would it not be a splendid example to the rest of the country?—Certainly: if it were possible.

(Sir Jan Langerman.) I suggest you might do that.

6189. **(Mr. Bowring.)** Are there other plantations besides those you have referred to in this neighbourhood?—Our Town Council is going in very largely for plantations, in fact, they are planting a forest at the present time, where they intend to plant one million trees. They have a large number of trees growing already.

6190. What trees are they planting mostly?—I think prineipally eucalyptus.

6191. For what purpose are those trees grown, what are they used for when they reach maturity?—We have never been able to to anything up to the present because there has not been sufficient to make any use of them, they have simply been grown for shelter and firewood.

6192. And you find this borer in all the plantations which are of any age?—Yes, ours is the oldest plantation. I believe there have been some more of these pests found since, but we were the first to find them on our trees.

6193. And the pest is entering into other plantations as they reach a certain age?—Well, we are afraid they will.

6194. **(Chairman.)** I would suggest that you communicate with the Imperial Institute, London, S.W., in regard to this pest; they will be able no doubt to give you guidance, and I think it would also be wise to communicate with the Australian authorities, who may be able to give you valuable information. You should send specimens with full details?—Yes, I think that will be of assistance to us.

Mr. F. GRIFFITH, Municipal Forester, Bloemfontein, called and examined.

6195. **(Chairman.)** You have charge of afforestation and tree planting within the municipal area ?—Yes.

6196. How much tree planting is done ? — We have reserved a forest area which is approximately 2,000 morgen, and have several plantations around the city, probably from 60 to 150 acres, besides the parks.

6197. One of the special points on which the Commission is anxious to hear you is the devastation which has been caused or threatened by the borer ?—It appears to me that this borer has been introduced from Australia by some means and has become very serious on certain kinds of eucalyptus, particularly blue-gum and the willow-gum. The red-gum, which was one we extensively planted in this district, has not been affected yet.

6198. Since when have you noticed the borer ?—I have only recently discovered it within the last six weeks. I found trees showing signs of distress, and I sent men down to fell them, when I found the cause to be due to this insect.

6199. What is your theory as to its introduction ?—It has probably been introduced into this country in the pupal stage in blue-gum wood from Australia.

6200. Have you any idea regarding preventive measures to be adopted against it ?—So far I find the best course to take is to fell and burn the distressed trees on first signs of the borer ; when you fell the tree you destroy the grub in the larval stage. There does not seem to be any kind of bird that will destroy the beetle.

6201. **(Mr. Sinclair.)** The disease has not existed here sufficiently long for the Government to take steps to investigate its origin, has it ?—It seems that the pest has been known in this district for about three years. I have heard that it has been known on a farm three miles out and went to investigate the pest and found signs of it in a log of wood which they had used in the construction of a cowshed. This log had been felled about two years and therefore it must have been on this farm about three years ago, but we knew nothing about it. The pest has evidently come from this farm to Bloemfontein. It seems also that they have had the pest in the Government plantation at Ceres Road for some years. We have been told that it attacks older trees and that the younger trees seem to be immune.

6202. Can you furnish any suggestion for that ?—It seems that the beetle lays its eggs in a recess under the bark of the tree, and as the eggs develop they gradually work between the bark of the tree and sapwood, and on the young tree there would appear to be no substance for them to live on.

6203. There is a greater opportunity for lodgment in the older trees ?—Yes.

6204. Can you tell us anything about the area that has been reafforested in this district ?—I cannot say in the district ; it has been chiefly ornamental planting about here and a few shelter trees.

6205. Has there been any systematic tree planting for forest purposes ?—Only by the municipality.

6206. Not by the State ?—Not in the Bloemfontein District. Of course, the Government, since the Crown Colony days, has established an afforestation policy here, and they have established four stations in the Free State. Altogether, I think they have planted about a thousand morgen in the last ten years.

6207. Is the work going on ?—Yes, but very slowly.

6208. **(Sir Jan Langerman.)** Do you know anything about the codling moth in the fruit trees ?—Yes.

6209. Is it here to any large extent ?—I am afraid it has been neglected and allowed to increase. It is comparatively easy to eradicate the codling moth ; by spraying your trees when they come into bloom you can easily destroy the moth.

6210. The difficulty seems to be that there is no compulsory spraying ?—No.

6211. Do you not think the Municipality could deal with that. It is within their area and they are responsible for the welfare of that area ?—Of course we have a Government entomologist in the Agricultural Department. Whether it has been due to pressure of work I do not know, but certainly this pest has been rather neglected of late in this part of the country.

6212. If you had authority do you think the Municipality could deal with it successfully ? — Yes, I think so.

6213. Do you not think that, instead of waiting for the Government, if measures were to be taken by the municipality it would be better ?—I think it would be better.

6214. **(Sir Rider Haggard.)** You talk of this borer as a beetle ?—Yes.

6215. What sort of a beetle is it ?—It is about 1¼ inches long, and it has peculiarly shaped horns slightly longer than the body. Of course, the danger is done in the grub stage, it ring-barks the tree. You do not find any trace of the insect until the tree shows signs of distress, and then you move the bark and find hundreds of these grubs.

6216. Therefore, it is a serious thing ?—Yes, the Municipality here is spending about 3,000*l.* per annum upon afforestation work, and I have looked upon the eucalyptus as one of our coming timber trees for the Southern Hemisphere. There is one gum we have planted very extensively—the red-gum—and it supplies very valuable timber, which is worth as much as 3*s.* 9*d.* a cube in Cape Town, and is admirably suited for ordinary timber purposes, and, so far, it has been immune from this pest.

6217. Have you been on this farm ?—Yes, and I found no red-gum touched. I found blue-gums attacked within four or five yards of the red-gums, but the red-gum has so far escaped.

6218. What other trees seem to have escaped ?—The box-gum, which is another valuable gum. That is also a tree we are extensively planting. I may say that the willow-gum is extensively planted in the East, and if this pest should go in that direction it will do a tremendous amount of damage, and also in the Transvaal.

6219. How about conifers ?—I have not found it attack them. I have also found it in the iron-bark trees. The red iron-bark is a very hard gum and very valuable. I have found this insect kills trees with timber of about 12 inches in diameter at base, but the wood of the iron-bark seems to be too hard for the larvæ of this insect to penetrate. When the larvæ get to a certain stage they bore right into the heart of the tree to pupate.

6220. It attacks fruit trees also, I understand ?—No.

6221. One witness this morning said it did ?—I do not think so. Of course, we have several borers in this country. We have one which attacks the mimosa tree, but that is a different kind of beetle.

6222. Is that an indigenous borer ?—Yes.

6223. Well, he has not killed out the trees, so he cannot be very bad ?—That is so. The damage that this borer does is by cutting off the sap. The Australian beetle works probably up the stem of the tree for 2 or 3 feet. When the larvæ start to develop they make a number of channels commencing about one-sixteenth of an inch deep. The eggs are laid probably in a crevice of the bark to the extent of 20 or 30. When the eggs develop the grubs travel under the bark, eating away the sapwood, making channels from one-sixteenth of an inch to 2 inches wide, and every grub keeps apart from its neighbour ; there is a thin wall between them, and these channels go right round the tree.

6224. I understood the witness this morning to say they went into the wood ?—They go there afterwards, they bore there to pupate. That is at the final of the larval stage.

6225. They first of all go up the stem ?—Yes, until they develop into big grubs.

6226. And then they bore right in in order to lie as a chrysalis ?—Yes.

6227. So it is an extremely serious state of affairs ?—It is not the boring into the wood that destroys the

tree exactly, but it destroys the value of the timber, of course.

6228. Anyhow between the two they destroy it?—Yes.

6229. Are you taking any steps to combat this pest?—I have recommended the Council to have all such trees felled in the municipal area, and we are doing the same in the parks.

6230. That may mean the loss of all your plantations?—Yes.

6231. You say you have been spending 3,000*l.* a year on tree planting?—Yes, for the last three or four years.

6232. **(Mr. Campbell.)** I presume you have had experience elsewhere than at Bloemfontein in afforestation work?—Yes, I established the Imperani plantation for the Government. I was with the Government six years before I joined the Municipality, and have also had experience in America, and my people have been in the nursery and afforestation business for three or four generations in England.

6233. What is the reason that in this afforestation work timber trees from outside of South Africa are almost invariably used. Are there no native trees?—Along the rain belt you get the yellow-wood, but that will not stand the frost which we get on the high veldt, and besides all the indigenous trees of South Africa are very slow-growing.

6234. I have seen a very good timber which is used for different purposes in Cape Town. I think they call it stinkwood?—Yes.

6235. Is that not worth using for afforestation?—Yes, but our frosts in this part of South Africa are too severe for it.

6236. And does that apply to all localities in South Africa?—No, in its habitat it can be reafforested.

6237. Then it is only on these high altitudes where it is not suitable?—Yes.

6238. In using Australian timber, which I notice you use very largely for afforestation purposes, what kind do you generally use?—I think we must have tested a hundred different species in the Free State. The Australian trees are chiefly eucalyptus and acacias, and out of the hundred species of eucalyptus we have tested we have come down to about six, which we can safely recommend for planting in certain localities with a given soil.

6239. Do you use the Tasmanian white-gum?—No, it will not stand the frost.

6240. And the New South Wales blackbutt?—No, along the coast belts and at the Cape it will do, but not here.

6241. The red-gum will do well?—Yes, it is one of our best gums.

6242. And jarrah?—No, it will not do.

6243. You are then restricted to the least valuable kinds of trees?—Well, I maintain that we have a few which are very valuable, such as the box-gums and the red-gums, they are as valuable as any eucalyptus grown, and the red iron-bark-gum is a better quality of timber than jarrah.

6244. Does that grow here?—Yes.

6245. Is there any considerable afforestation being carried on with timber of that class in the Free State?—Nothing very great.

6246. Is anything done outside the municipality?—No, Mr. Newberry at Clocolan has the largest plantation in the Free State.

6247. **(Mr. Lorimer.)** Has it ever been observed whether any bird attacks this borer and destroys it for food?—I have not noticed, I may mention that if we had a bird of the woodpecker type, that is the sort of bird that would destroy the beetle.

6248. If you had a bird of that sort you could encourage its growth and breeding?—Yes.

6249. May I ask if you have seen or heard of any kind of insect that attacks the eggs of this pest?—I am inclined to think that the ant would be an enemy of the eggs. But I have only discovered this pest within the last six weeks. I am very keen on observing everything about it now, and if I can find an enemy or a parasite which would be useful I shall be only too pleased.

6250. **(Mr. Garnett.)** Has it ever suggested itself to you to send the larva and wood to the Imperial Institute to ask if they have any suggestions?—I have sent the insect in its three stages to the entomologist at Pretoria.

6251. But you have not sent it to the Imperial Institute in London?—No, but I can do so.

6252. **(Chairman.)** I think it would be desirable to do that, and possibly also to write to the Australian authorities?—Of course, the Entomological Department here is now studying the life-history of the pest, and I suppose they will go thoroughly into the matter, and inform us of the result of their investigations and what they suggest as to a remedy.

Note by Witness.

The following are the entomological names of borer beetles mentioned:—

Phoracantha recurva	The eucalyptus borer beetle.
Macrotoma palmata	The mimosa borer beetle.

For information the following are the botanical names of the species of gums afore-mentioned, viz.:—

Botanical Name.	Vernacular Name.
Eucalyptus globulus	Blue-gum tree.
„ *viminalis*	Willow-gum tree.
„ *rostrata*	Red-gum tree.
„ *tereticornis*	Forest red-gum tree.
„ *sideroxylon*	Red iron-bark-gum tree.
„ *leucoxylon*	Ordinary iron-bark-gum tree.
„ *polyanthema*	Red box-gum tree.
„ *melliodora*	Yellow box-gum tree.
„ *hemiphloia*	Grey box-gum tree.
„ *redunca*	White-gum tree.
„ *pauciflora*	Also a white bark-gum tree, good frost-resister, and thrives in the more humid parts of the high veld.
„ *marginata*	Jarrah.
„ *pilularis*	The blackbutt-gum tree.

Bloemfontein, Saturday, 21st March 1914.

Mr. C. McG. JOHNSTON, Secretary to the South African Agricultural Union, called and examined.

(*For the evidence of this witness on "Animal and Agricultural Produce,"* see *p.* 215.)

The witness made the following statement:—

I notice that it was said yesterday that the gum-tree borer is not known elsewhere than in this Province; that was the impression I got from the Press report. But I would like to point out that it is known in certain parts of the Cape Colony, and it is also a pest in Australia. I discussed the matter recently with the Assistant Chief Entomologist, Mr. Claude Fuller. He comes from Australia, and he assures me the insect is quite prevalent in certain parts of the Cape.

6253. **(Sir R. Haggard.)** Are you sure that this borer is prevalent in the Cape. I visited those two beautiful plantations at the top of Sir Lowry Pass and saw no trace of it?—Mr. Claude Fuller, the Assistant Entomologist in Pretoria, was here the other day in connection with it, and I suggested this was the only place where it existed, but he said there were several forests in the Cape Colony also affected.

NATAL.

Durban, Wednesday, 25th March 1914.

Mr. C. D. KEITH FRASER, wattle-grower, called and examined.

6254. **(Sir Alfred Bateman.)** You have sent in a memorandum which has been circulated and carefully read by the members of the Commission, so it is not necessary, I think, to read it now, but I will ask Mr. Lorimer, who knows a good deal about the subject, to ask you a few questions, and my other colleagues will do the same?—Yes.

The memorandum submitted was as follows:—

WOOD DISTILLATION.

A big new industry can be established in Natal in the distillation of wood, if the British War Office could be induced to use acetone, manufactured from Natal wood, in preference to that produced from Bosnian beech, which is the chief source of supply at the present time.

The Bosnian product arrives in England in the form of acetate of lime, and is there distilled into acetone of a 78 per cent. standard of purity. The purity standard of acetone from Natal wattle wood is 80 per cent. The price would be the same as the lower standard article.

Several attempts have been made to obtain a contract, or at least some guarantee of support, from the War Office, but so far without success, chiefly, I believe, because the matter of the supply of this article—an essential in the manufacture of cordite—has become one of stereotyped routine.

The Chemical Union and/or Brunner, Mond & Co. have supplied the War Office requirements of this class for many years past, and the new orders go to them now as a mere detail of routine. Sir Matthew Nathan, when Governor of Natal, became interested in the matter, and brought it to the notice of his brother, Colonel Nathan, R.E., at that time, I believe, in charge of Woolwich Arsenal; but nothing came of it, and subsequent representations have shared the same fate.

Without either a definite contract or some assurance of support, even to a limited extent, it will be obvious that the growers of wattle in Natal, comprising, as they do, a large number of comparatively small farmers, would find it impossible to compete against wealthy corporations like the Chemical Union and Brunner, Mond & Co. in any venture where their interests clashed, or in finding a market at all in open competition.

The fact that acetone—an essential of cordite—was being imported entirely from foreign countries was shown to be a national danger in a leading article in the "London Times" in July 1907, and it is this aspect of the matter that has been emphasised as an inducement to the War Office to support its manufacture in a British possession.

Acetone, as already stated, is made in England from acetate of lime, in which form the product leaves the various centres of primary distillation. The British import of acetate of lime from America alone averages 40,000 tons per annum, valued at about 500,000*l.* I do not know what the import from the Continent of Europe amounts to, but I believe the celluloid industry uses about as much as the explosive industry, and the total import value probably exceeds 1,000,000*l.* per annum. Wood distillation at the present time is confined to the vicinity of large indigenous forests, and in consequence factories have either to be removed to new sites as the wood area around them becomes exhausted, or transport methods have to be extended at an increasing cost per ton mile of haulage.

In Natal the position in this respect is unique in the whole world, as the timber is reproduced on the original plantation sites every seven or eight years.

A factory established here would, therefore, have a regular annual rotational acreage of trees to reap for an indefinite number of years, and transport and other costs would not vary, except to a very limited extent with the rise or fall in the cost of unskilled labour.

There are seven centres in Natal which could support distillation factories, five of them treating 30,000 tons and two 20,000 tons, a total of 190,000 tons of wood per annum.

The acreage of trees served by those factories within easy distance of the railway would be 105,000 acres, that is, less than half the acreage under wattle in the Province as a whole.

The most economical method of dealing with this available wood would be to have carbonising plants at the seven centres above indicated, and one central refinery to treat the district products as a whole.

A factory dealing with 30,000 tons of wood per annum would cost 25,000*l.* in working order.

Its products and their value would be:—

	£
1,650 tons acetate of lime at 12*l.* per ton	19,800
420 tons, 93,900 gallons crude wood spirit at 2*s.* 3*d.* per gallon	11,737
960 tons wood tar at 30*s.* per ton	1,440
7,500 tons charcoal (sold as firewood) at 15*s.* per ton	5,625
	38,602

Expenditure would be:—	£	
30,000 tons wood at 6*s.*	9,000	
550 tons lime at 40*s.*	1,100	
Freight 1,650 tons acetate at 20*s.*	1,650	
Working expenses, 30,000 tons at 14*s.*	21,000	
Leaving for depreciation and profit	5,850	
	38,600	38,600

or say 20 per cent.

If the same factory were equipped to continue the refining process to acetone, the results would be:—

Erected Cost in Working Order 35,000*l.*

	£
330 tons acetone 80 per cent., at 80*l.* per ton	26,400
420 ,, crude spirit at 2*s.* 3*d.* per gallon	11,737
960 ,, wood tar at 30*s.* per ton	1,440
7,500 ,, charcoal at 15*s.* per ton	5,625
	45,202

Costs would be—

	£	
Working expenses, 30,000 tons at 15*s.*	22,500	
30,000 tons wood at 6*s.*	9,000	
Freight 330 tons acetone at 5*l.*	1,650	
Leaving for depreciation and profit	13,052	
	45,202	45,202

or say 35 per cent.

The profit shown in the foregoing assumes the sale of the entire production of the factory, and although I have no doubt as to the sale of the products of one factory of this size—with the possible exception of part of the crude spirit output—I am unable from personal knowledge to show how it would be possible to dispose of ths crude or refined spirit output of the seven factories there is wood enough to serve. Neither have I any personal knowledge of the oversea market for wood spirit, nor any idea as to whether it would be possible, in its refined form, to adapt it for power purposes to internal combustion engines, and thus secure a South African market for it.

At the present time there would be no hope, so far as my knowledge goes, of finding a market for all the bye-products of the seven factories the Province could support. The local consumption of crude wood spirit is about 10,000 gallons only. What it is in rectified spirit I have been unable to ascertain, as the Statistical Bureau in Cape Town lumps everything of this nature under one heading as chemicals. Other bye-products of which I have been unable for the same reason to obtain statistics of consumption, are glacial acetic acid, acetate of lead, acetate of soda, creosote, and refined naphtha.

The market for firewood could, I am certain, be secured for charcoal, as that could be supplied to the consumer at less than the cost of firewood, and the tar output would also find a ready sale for many years, for street and road improvement purposes.

In recommending district carbonising plants and one central refinery, my object was to minimise supervisional costs. The district plants would not require the highly trained technical staff that the central refinery would, as in the former case the product would be acetate of lime, which is a harmless solid, whereas the refinery staff would have to deal with acetone—a volatile and highly inflammable liquid requiring specialised knowledge in its production and handling.

In summing up the whole matter, my point is that the timber easily available for use, which is now going to waste, or of which only a very small proportion is utilised for mine props and firewood, represents a realisable value of 180,000*l.* per annum, thus:—

		£
2,000 tons	acetone - - - - -	160,000
2,290 „	wood spirit, say quarter saleable, at 2*s.* 3*d.* per gallon	15,400
5,440 „	wood tar ditto, 30*s.* per ton	2,040
42,500 „	charcoal ditto, say 10*s.* -	5,312
		182,152

say 180,000*l.*, and three quarters of the bracketted by-products to waste.

Appendix attached to this report shows the products of wattle wood in a very clear manner.

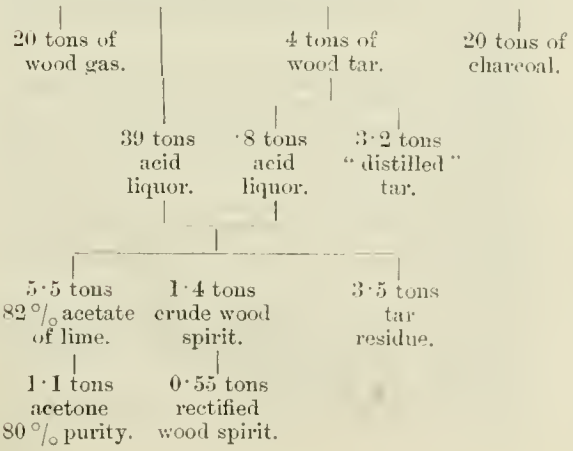
The experiments determining these quantities were carried out at the Chemical Engineering Works, Hendon, by Dr. Lessing, a chemist of wide repute, and were completed on 20th August 1912.

In bringing this matter to the notice of the Dominions Royal Commission, I do so in the hope that attention may be directed to a means of helping a struggling industry represented by a class of men who have so far fought their way without Governmental assistance in any shape or form, but who are now in a precarious position owing to the fall in the price of wattle bark, and who are unable for reasons which this report will have made obvious to make any material use of their wood.

Appendix.

Products obtainable from Wattle Wood.

100 *tons of Wattle Wood.*


20 tons of wood gas.
4 tons of wood tar.
20 tons of charcoal.
39 tons acid liquor.
·8 tons acid liquor.
3·2 tons "distilled" tar.
5·5 tons 82 % acetate of lime.
1·4 tons crude wood spirit.
3·5 tons tar residue.
1·1 tons acetone 80 % purity.
0·55 tons rectified wood spirit.

6255. **(Mr. Lorimer.)** What is this timber that you propose to use for distillation?—It is wattle wood.

6256. You have enormous quantities of it, have you not?—Yes.

6257. Is it not all used for producing bark for tanning?—None of it is used for tanning.

6258. You cannot utilise for tanning purposes all you grow, can you?—Only the bark of the tree is used for tanning.

6259. Does not the removal of the bark destroy the tree? Does it grow again?—Yes, it grows from seed self sown.

6260. There is no doubt at all that the distillation of this timber is a very interesting and valuable proposal. We had the same thing suggested to us in New Zealand when we were there, and the gentleman who spoke on the subject complained that the whole of the bush that was cleared for settlement was used in the most wasteful manner, and simply thrown away without being utilised in any way whatsoever. He also pointed out that the acetone which could be obtained from this timber was worth at least 75*l.* a ton?—Yes.

6261. You say you have attempted to induce the War Office to listen to your proposals and without effect?—Yes.

6262. Through whom did you make the representations?—My report states how the representations were made. They were made by Colonel Nathan on the representation of his brother, who was then Governor of this Colony.

6263. But was any attempt made to present the matter through the agency of the late Sir Richard Solomon?—Not to my personal knowledge.

6264. Because, of course, a matter of this sort presented to the War Office in that way would carry greater weight from the official head of the Union than through any individual person?—When that representation was made it was three years before Union.

6265. The matter seems to me to be of so much importance that you ought to have made representations to the War Office through the Government agency. I do not think it is much use for any individual to go there, because he would simply be made the vehicle of red tape, but if a representation as to the facts and the possibilities of the supply of so essential an article as this, within the Empire, were presented authoritatively and officially it would not be easy to overlook it, and it would not be easy to set it aside. Have you practically an unlimited quantity of this wattle?—The area of wattle I have shown in my report is readily available for transport and near to the railway, but there is about three times that area altogether in the Province.

6266. Of course, if this became an established industry there would be no difficulty in providing sufficient railway accommodation for your purpose. Has this wood been tested sufficiently to warrant you in saying that this would be its production?—Yes.

6267. On a large scale?—Yes.

6268. Where?—At Hendon, in England.

6269. How much of it was put through the experiment?—About 25 tons.

6270. Was the production in accordance with what you say in your paper?—I am going to submit the official report.*

6271. Were there any of the War Office people present at that experiment, do you know?—I cannot say.

6272. By whom were they made?—By Dr. Lessing.

6273. On behalf of whom?—On my behalf, at the request of people to whom I had submitted it in England.

6274. When you got that report what did you do with it?—I left the matter in the hands of those people at home, friends of mine.

6275. And have they presented the report to the War Office, do you know?—I understand so. I understand that one of the officials at the War Office was interested in the scheme and reported it to the proper

* Not reproduced.

quarter. That is the only information I have received. I am not saying that from personal knowledge.

6276. Has anything come of it?—No.

6277. Has it been the influence of the Chemical Union which has prevented your wood being utilised so far?—I am given to understand that is so. It is on account of the vested interests that are employed.

6278. Then you are not getting justice on account of vested interests, or you are not getting a fair opportunity of submitting what you can do?—That is what I am given to understand.

6279. What you put forward is this—that you have enormous quantities of this timber available, and the British War Office could be adequately supplied with all the acetone they want?—I do not know what is the total quantity the British War Office require, but we could supply them possibly with about 6,000 tons and with a readily available quantity of 2,000 tons each year.

6280. And do you submit also that experiments have been made which have placed it absolutely beyond doubt that this timber provides acetone which is worth the market price?—Beyond dispute and beyond any question of further proof.

6281. And you further state that, as far as you know, the requirements of the War Office are at present being supplied from foreign countries?—Yes, it is supplied from foreign countries.

6282. And you can produce, if not all the Empire requires, at any rate a certain substantial amount?—Without any question.

6283. I do not know whether the suggestion which I have made to you would be immediately available until Sir Richard Solomon's successor is appointed, but I think the proper way to approach the War Office would be through him?—I understand that this matter was taken a very great interest in by the late Minister for Commerce in the Union Government. He took a very keen interest in it indeed, and made many inquiries on his own behalf and at his own expense, and he was most sympathetic. He represented the matter, I understand, to the Union Government, and I believe that a representation was made to the British War Office by this Government, but nothing came of it.

6284. Well, now, have you anything else that your timber would produce if it were distilled?—I give the list of by-products in this paper with the percentages.

6285. **(Mr. Garnett.)** Have any efforts been made to put the potentialities and possibilities of this Province before either Messrs. Brunner, Mond, and Company or the Chemical Union?—I am in this difficulty. I have not been able to go home and bring this matter before the people concerned except through correspondence and agents. The replies I have received have been that it is quite impossible to get beyond the people who are interested. We could not get to the War Office direct.

6286. I am asking this—if you are producing acetone with a purity standard of 80 per cent. against a Bosnian product of 78 per cent., have the users of that Bosnian product had the potentialities of your Province put before them as a source from whence they could obtain their supplies?—I cannot say from personal knowledge, but people who have had the matter in hand for me at home have always given me to understand that the vested interest of the suppliers of acetone at the present time were such that we would be beaten out of the market if any attempt was made to get the industry started here. Whether any attempt was made to get the interested people to start the industry themselves in this country or not I cannot say. As far as I was personally concerned it was quite immaterial whether it was the War Office or Brunner, Mond, and Company, or the Chemical Union or anyone else.

6287. All I want to know is whether the advantage of drawing their supplies of acetone from your Province has been put before either Messrs. Brunner, Mond, and Company or the Chemical Union?—Not to my knowledge.

6288. Because it would seem to me that, if the cost of production is not very much greater or even slightly greater than under the present system, the advantages which you could guarantee in regard to the superior quality of your product would no doubt induce people with capital to develop this industry in this country, in the same way as I understand certain industries have already been established by English capitalists in South Africa?—Yes. I must confess that when I first took this matter up, some seven years ago, it was with the object of getting the material made in Natal, and securing contracts so as to obtain the benefit of the manufacture here, but after the wattle-growing business spread so much in this Province, and the waste wood became a matter of such great monetary value, I gave up any idea of that, and I would have been only too anxious for anyone else to take it up. But the people who represented me on the other side said it was impossible, because there were so many vested interests involved in connection with the present sources of supply.

6289. **(Mr. Sinclair.)** Is there no hope of local capital starting a factory in order to produce actual results without waiting for outside people to begin the undertaking?—There is no hope whatever without some guarantee of the market. I understand that the source of supplies at present is a trust or combine at home, and it would be impossible to compete with them unless we could get a firm undertaking from the War Office to use the acetone which we could produce.

6290. The thought passing through my mind is this—You cannot avoid competition. You would have to face that, would you not. After you have your factory erected and in working operation you must face competition?—You would have to face competition, but I think that you would be justified in getting some sort of preference for the acetone produced here from the War Office.

6291. That may or may not be so, but is there not sufficient confidence in your power to face competition successfully to induce local capital to take the industry up without an outside undertaking that you will get some preference or benefit for your product?—I think that is quite certain. It is an absolutely new idea here, and like all new things, especially with the class of men engaged in it, the local capitalist would be very chary of putting up money to start a factory without some sort of a guarantee that there would be fair competition or an assured market for the valuable part of the product.

6292. The market, on the other hand, would like to see actual results before it committed itself to take the article, would it not?—I submit that the results have actually been obtained.

6293. In what shape?—By actual experiments on a large scale.

6294. You are referring to the 25 tons that were treated at Hendon?—Yes.

6295. **(Mr. Bowring.)** Is the wattle timber indigenous to South Africa or has it been brought from outside?—It has been brought from outside.

6296. From where?—From Australia.

6297. And it grows in this country as well as in Australia?—I have been told better.

6298. But I suppose there are quantities of it in Australia the same as here?—No, there is not so very much, at least six years ago there was not very much; there is a good deal of indigenous wattle—very little cultivated.

6299. It has been running in my mind that possibly Australians might also be looking for similar privileges if what you advocate was done?—I think it very likely with regard to the cultivated area, but the cultivated area six years ago in the whole of Australia was only about 15,000 acres.

6300. Are there no other uses for acetone besides making explosives?—It is also used in the celluloid industry and in all industries that require a solvent for fat or resin.

6301. There is a large field for exploitation?—Yes, and what is used in the celluloid industry and for other solvent purposes is of very much less purity and it is not so expensive to produce.

6302. For explosives you want a higher standard?—Yes.

6305. You contend that it could be made here better than elsewhere?—It could be made as well, at any rate.

6304. **(Sir Alfred Bateman.)** In regard to this company you refer to, the Chemical Union, is that the name of it, or are you referring to the United Alkali Company?—I cannot say. I understand it is a union between firms in the United States and firms in Great Britain. I think its headquarters are in the United States.

6305. The word bark has been used several times in this discussion, surely you are referring to the wood?—Yes, the wood only.

6306. You are not referring to the bark?—No.

6307. As Mr. Lorimer has already suggested, your best plan would be to get into touch with the War Office through the High Commissioner and get the War Office to make these tests. Your own were private tests, were they not; there was no representative of the War Office there?—No official representative, as far as I know.

6308. But surely it is very desirable to get the War Office to be present at these tests?—I know there was a representative of the War Office, but whether he was there officially or not, I cannot say.

6309. **(Mr. Lorimer.)** I have been looking at these figures since we were speaking. If you established these seven factories locally would they be on land belonging to the Government or private individuals?—Entirely belonging to private individuals.

6310. And the central factory would also probably be established on ground belonging to private individuals, the refining factory?—Yes.

6311. Of course it would not be impossible, but would not that present certain difficulties in regard to coming to terms and settling the question of rights and all the rest of it. When I speak of the factories, I do not mean the central factory, but the individual factories which are erected on land belonging to private individuals. I mean the whole of the timber there belongs to them?—It would be a number of individuals, there are no single individuals with enough to supply even one factory, or any two individuals.

6312. It would probably be best, I should imagine, for a central power to arrange to purchase the trees from each individual grower, would it not; there would be disputes as to quality, value, and so on unless the whole thing were brought into a common centre?—No, there is no question of quality, the only criterion would be the age of the tree.

6313. The age of the tree would determine the price, and each tree of a certain age would be worth the same price? Yes, but you would reckon them in hundreds of acres, of course, instead of in trees.

6314. But can you safely say that each individual tree of the same age on these plantations would be of the same value for the purposes of the central factory?—The figures which I have given are the average tonnage per acre.

6315. So it would average that?—Yes.

Pietermaritzburg, Friday, 27th March 1914.

Mr. FREDERICK THRELKELD ANGUS, Senior, Vice-President of the Co-operative Agricultural Union, and Mr. W. N. ANGUS, Junior, called and examined.

6316. **(Sir Alfred Bateman to Mr. F. T. Angus.)** You are Vice-President of the Co-operative Agricultural Union?—Yes, but I have not come in that capacity. I have come to give evidence on the wattle industry.

6317. What have you to say on that subject?—I may mention that, as perhaps you are aware, the bark of the *Acacia mollissima* was exported from Australia many years before Natal commenced to export. I think in 1880 or 1881 the late Sir George Sutton called attention to the value of the bark as an article for export, and about 1875 I had planted some acres of this tree in Umvoti county in Natal. In 1887 I made the first shipment, that is to say, the first shipment of anything more than a mere sample, and from 1887 to the present time I have been exporting. I think I was the first to ship wattle bark from this country. The price has ranged from 7*l.* to 17*l.* 10*s.* in that time, but for the past fifteen years I suppose about 9*l.* has been the average price, that is 9*l.* London and Hamburg. There has not been any accurate estimate of the acreage, no actual survey at any rate, but it is generally thought that about 200,000 acres are at present under wattle in Natal alone.

6318. Is there much in the other Provinces?—I do not think there is much. There is some in the Transvaal. I think the Free State is too cold. There are some in the neighbourhood of Johannesburg, but they have not planted largely, I think. It is mostly in Natal. I may also mention that in the early stages of the industry we were quite free from insect plagues, the price was very high and labour very cheap. At the present time we have many plagues, a low price for bark, and labour becoming scarce. White labour is out of the question. Australia formerly exported about 30,000 tons annually to Europe; now, not only have they ceased to export but we are sending bark to them from here.

6319. Is that for curing their own leather?—Yes, for tanning; the chief market, however, is Hamburg, and the brokers there appear to have combined and managed to control the price; it is, therefore, most desirable to find as many markets as possible, and we are making efforts in that direction now. I do not know whether it is any use mentioning to this Commission that we are under certain disabilities with respect to our railway. That is to say, we are sending from a siding and taking the entire risk of our consignment until it gets to the port, and we are provided with very inferior tarpaulins to cover the stuff, and the consequence is that the bark gets damaged frequently and we have no redress.

6320. You have complained about that to the Railway Department I suppose?—Yes, and representations are being made through the Union again, I think. In conclusion, I may say that the assurance of a good labour supply is most essential. At the present time, the output is limited by the amount of labour available. We could do very much more if we had plenty of labour.

6321. You mean that you could put a bigger acreage under trees?—Yes, if the labour supplies were adequate. With a good labour supply, reasonable care by the Railway Department, and that sort of thing, the prospects for the industry are, I think, very good indeed, as tanning materials throughout the world seem to be consumed at a greater rate than they are produced.

6322. I suppose this originated when oak tanning was getting dearer?—Yes, well there are many tanning materials and they have constantly been coming in. I believe that this particular bark grows better here than in Australia. In Australia they have another bark which is used very largely, and is of a better quality than the bark we grow, but it does not crop so heavily. That is the *Acacia pycnantha* or golden wattle. Its trade name is "best Adelaide."

6323. **(Mr. Campbell.)** It comes from West Australia principally, I think, from Fremantle?—Yes, but it does not do well here, and it does not pay. I think that is all I have to say.

6324. **(Sir Alfred Bateman.)** Where do you get your labour from?—The labour so far is the indentured Indian and some native labour, but the Indian labour has been stopped.

6325. I suppose you have superintendence by whites?—Yes, and Indian sirdars instructed by the white employer.

6326. **(Mr. Sinclair.)** You told us that you have about 200,000 acres of these wattle trees in Natal. Has that all been artificially planted or has it extended from self-sown seed?—Practically the whole of it is artificial. You get a little overlapping the boundaries, but it is insignificant.

6327. What is the effect of wattle-growing on the soil?—It improves the soil. I think the root has the nodule containing the bacteria which collect the nitrogen from the atmosphere and improves the soil in the same way as peas and beans.

6328. As to the pests from which the tree suffers, are you getting control of them?—Not in the least.

6329. Are they making headway against you?—Well, they have their natural enemies, and they go in cycles. The bag worm, which is one of the most destructive, has very numerous enemies, which almost kill it out until they themselves die of hunger. Then the bag worm increases again enormously until its enemies again become strong enough to knock it out. There is no other way of checking them.

6330. Australia's output of bark was materially lessened, was it not, by the insect pests that got into the trees?—I cannot say.

6331. Have you any fear of the pests making such headway that they will ultimately destroy the trees?—No, fortunately the trees have great vitality. For example, last season we had plantations entirely defoliated by these bag worms, and they are quite recovered again this season.

6332. What do you say the price of wattle bark is to-day per ton?—About 7*l.* 2*s.* 6*d.* London.

6333. Is that reduced price the result of combination at Hamburg?—We believe so, but we cannot prove it. We are convinced that it is so because other tanning materials have not fallen at the same rate.

6334. You do not speak as to the use of the wood of the tree?—We market the wood as fuel and as mine props.

6335. **(Mr. Bowring.)** At what age do you commence taking the bark from the tree?—It varies according to the season. If we have very favourable seasons we may commence thinning it over at 4½, five, or six years, according to favourable or unfavourable seasons, and the immunity otherwise of these plagues. But five years is the most likely.

6336. And when you strip the bark you destroy the tree?—Yes.

6337. It does not grow from the roots again?—It is not desirable. Some of them will ratoon and some will not, but if you allow them to grow up again from the old stem they are very weak and are easily knocked over by the wind.

6338. Therefore you replant?—No, they replant themselves. They come up very thick like a crop of corn, and it costs a lot to thin them out. Really it costs more to thin them than the original planting.

6339. I suppose the small trees that you thin out are valueless?—Yes, except for any fertilizing qualities they may possess.

6340. What size of tree is it that you take the bulk of the bark from?—The first thinning will average about 2 or 3 inches in diameter, and the final thinning would run from 5 to 9, 10, or even 12 inches in diameter.

6341. I suppose that is the extreme limit?—Yes, that is about the extreme limit.

6342. **(Mr. Tatlow.)** Is the industry profitable at the present time?—Yes, that is for plantations close to the railway. I think plantations very distant from the railway would hardly pay.

6343. Are there plenty of plantations at present within easy reach of the railway?—Yes, a good many, and a great many at very considerable distances. I should think many of them are at non-payable distances.

6344. Is there plenty of suitable ground within access of the railway which can be devoted to it?—Yes, I suppose there is a good deal of land near the railway.

6345. Will you tell me in what way the bark suffers damage during transit by rail?—It suffers damage by wet. Tannic acid is easily driven out by rain.

6346. Is it conveyed in open trucks?—In trucks covered by tarpaulins, and it is owing to the faultiness of these tarpaulins that the damage occurs.

6347. Does not the railway provide covered trucks?—No, all the trucks we have for bark are open and covered with sails or tarpaulins.

6348. How is the bark packed?—It is packed in bags, about 200 lbs. in a bag.

6349. Does the Department decline to convey it in covered trucks?—Well, they have never offered covered trucks.

6350. Are they ever pressed for?—No, I do not think so. I think until Union took place our tarpaulins were excellent. Since Union, however, all the trucks have been sent to the Cape and they have sent all the rubbish to Natal. That is my opinion.

6351. If this was put before the Department surely they would remedy it, because it is to the interest of the country that this bark should be properly conveyed?—Yes, it should, there is no doubt about that, but they are very slow.

6352. Do you press the matter sufficiently?—Well, we do our best.

6353. I suppose in regard to the rates these are favourable, are they not? Is this bark chiefly exported?—All of it.

6354. You have favourable export rates?—The rates are very reasonable.

6355. What distance is this bark conveyed, I mean what average distance?—Well, mine are conveyed about 140 miles perhaps, and they will go as far as 300 miles I should think.

6356. For 140 miles what would be the rate per ton?—About 8*s.*

6357. That seems a reasonable rate?—Yes, it is reasonable.

6358. What is a full truck-load?—It is a 20-ton truck.

6359. Is it conveyed at the owners' risk? Does the Railway Department take any responsibility as to risk of damage in transit? When it is loaded at a siding they do not. When it is loaded at a station, it is at the risk of the railway, and it is loaded by the railway. At the siding we have to load it ourselves and take the risk, even when the Department admits that the damage was due to them.

6360. Is that not a condition of the low rate which you get, that the owner takes the risk?—No, that is not so, because at the station the railway does take the risk.

6361. When it is at the station is it an equally favourable rate?—It is exactly the same rate.

6362. It seems strange that because it is loaded at the siding you should have to take the risk, whereas if it is loaded at the station the Department takes the risk, although the rate is the same. The Department accepts the risk in one case and not in the other. There must be some reason for this?—There is no reason. It is an absurdity, more particularly as they are doing the work themselves. We load the stuff ourselves at the siding and the Railway Department has no trouble.

6363. Perhaps they contend that they load it properly and that the risk is not, therefore, so great?—Well, you see they have not pleaded that; if they had claimed that, there would have been some reason, but the reports we have had so far have been that so many bags of bark have been damaged by wet owing to the rain having soaked through the tarpaulin, and we can get no satisfaction.

6364. **(Sir Rider Haggard.)** How does this wattle-growing at the present prices pay in comparison with other crops?—I should imagine that close to rail at present it would pay better than mealies.

6365. And better than lucerne?—There is nothing pays like lucerne.

6366. And better than cattle?—Better than ordinary cattle. Possibly dairying with high class cows could go better.

6367. At present prices, then, it has no startling advantages over other products in the way of payability?—Certainly not.

6368. Do you anticipate that those prices will go up or down?—I think they are certain to go up.

6369. Why?—Because, as I mentioned before, tanning materials and timber generally are being consumed at a very much greater rate than they are being produced.

6370. Is there a system of synthetic tanning produced yet?—There is chrome tanning, but that has been going on for many years without knocking the bark tanning out.

6371. You are aware, I suppose, that our oak bark at home now scarcely pays for removal?—That is quite likely. It contains about 6 or 8 per cent. of tannin as against our 35 per cent.

6372. Then, perhaps, it is wattle which has done for us in that respect?—Very likely, I think.

6373. You look forward hopefully to the wattle industry?—Well, I think it is quite as hopeful now as when it commenced.

6374. Is there much being planted?—No. There has been a distinct check in planting owing to the fall in price, especially at places distant from rail.

6375. What does it cost per acre to stock a wattle plantation?—That is to say, to get it cut?

6376. The ploughing, sowing, and labour.—I should think about *1l.*, but it will vary according to the class of land. But *1l.* an acre would plough and sow it.

6377. And fence it? You have to fence it, I suppose?—Of course, ploughing varies in cost, but under the most favourable conditions that would include fencing, I think.

6378. So that the prime cost is not a matter of great moment—it is so low?—The prime cost is not great, but there is constant work while it is going on to keep it clean and fireproof.

6379. Does it require cleaning? Does not the dense shade kill the weeds?—It will keep the weeds down, but in the meantime they are troublesome—in the early stage.

6380. They have to be hand-hoed, I suppose?—Of late years a change has taken place. We used to plant 6 feet by 6 feet each way, but now we find it better to plant 12 feet by 6 feet.

6381. You sow the seed and then thin them out?—As a rule the seed is sown on the spot. At each space, a pinch of about 20 seeds are planted, and afterwards, all the bad trees are taken out and the best ones left; or they are planted continuously like peas and beans, and then they are thinned out to the proper distances. We have to sow thickly owing to the depredations of insects, and so on.

6382. Do these plagues ever destroy plantations?—No, I have never seen plantations destroyed.

6383. It is a very hardy thing, I should think?—Yes. Even if it takes fire—if it is not too severe—it will recover.

6384. Why is Natal peculiarly suitable for the wattle—more than other parts?—I suppose the climatic conditions are favourable, I am told that it does very much better here even than in its native country—it grows quicker and larger.

6385. You are not going to tell us anything about the general agricultural situation here?—No.

6386. **(Mr. Campbell.)** Has the municipality of Maritzburg been planting wattles heavily?—Yes.

6387. What is their intention—to go into the wattle-growing business?—I suppose it is for income for the town.

6388. Do they intend to strip the bark themselves or let the bark stripping to private individuals?—They have a manager who has a staff of labourers, and he will conduct the plantations just as for a company.

6389. What is the area they have planted?—About 5,000 acres, I think; I am not sure.

6390. Do they intend to extend the business?—No, I think this is all the land they have available.

6391. **(Mr. Garnett.)** You spoke just now of trees growing up to 5, 9, and 12 inches. How long does it take for them to attain that growth?—For a tree to attain 12 inches would take about ten or twelve years under favourable conditions.

6392. At the spaces that you have worked out the trees, how many does it work out to per acre?—6 × 6 works out at about 1,200, and 12 × 6 at, I suppose, 500 or 600.

6393. And it costs you *1l.* to prepare the land, fence it, and so on?—It will vary, but I think that should be about the figure.

6394. Your principal exports are to Australia and to Hamburg you say?—By far the greater amount goes to Hamburg, and next to that England and the Australian market, but they have only commenced quite recently.

6395. Does much go to England in the form of bark?—I suppose 5,000 tons, perhaps.

6396. I think we had it mentioned in evidence somewhere that England does not like the bark—they prefer the extract?—Yes, there is only a small market for the bark—about 5,000 tons, they use the extract principally in England.

6397. Where is that extract made?—All over the world—not of wattle bark necessarily. There is one firm of wattle extract makers in England—and the only one I know of—the Calder and Mersey Company—and they extract wattle bark to use as a blend with other tanning materials.

6398. You do not know whether any of this considerable export to Hamburg in the form of bark eventually finds its way into England in the form of extract?—It is quite likely.

6399. You have no definite information?—No, but there is an immense market for the bark in Germany and Russia. The small tanners who have been accustomed to use bark instead of extract are very conservative and keep on using it.

6400. Have you any difficulty in disposing of your bark?—No.

6401. If you had more you could dispose of more?—Yes.

6402. You say your output is very considerably limited by the limitations of your labour supply?—Yes; I think so.

6403. And you gave us to understand that if you had a plentiful labour supply here, the industry would be much more prosperous?—We are all hampered for want of sufficient labour.

6404. I was going to ask you whether there would come increased prosperity from two causes—one, the greater quantity you would have to sell, and also from the fact—I suppose you must have fixed charges like everyone else—that the more of your product you can sell the less is the cost, as measured by those fixed charges?—Yes, it lowers cost of production, and the more we can produce the more chance we have of extending our markets. For example, there is the United States, they will not look at it because we cannot assure them of a sufficient supply. They want enormous quantities.

6405. Well, then, in that cases it seems to me you have a very large potential market which you have hardly touched?—Yes.

6406. Your further prosperity depends very largely on your being able to attract sufficient labour supply to your industry?—Yes, that is the difficulty.

6407. At any rate, you have no fear whatever of being able to dispose of a very much greater quantity?—I do not think there is the least likelihood. The proportion that wattle bark bears to other tanning materials is about 2½ per cent.

6408. And, in spite of the comparatively low price to-day, you are still of opinion that, compared with other crops mentioned, wattle is the more attractive?—Yes.

6409. **(Sir Alfred Bateman.)** Do you know anything about the movement to establish factories here to make the extract of bark and send it home in that form?—A meeting is to be held in a day or two with that object in view. I think it is to form a company to extract the tanning material on the spot.

6410. You do not know whether there is much strength behind that movement?—I think it is likely that the growers will support it.

6411. And you would be glad to see it?—Yes, I think it would have the effect of relieving the German market and sending the price up.

6412. It would give you another market?—Yes.

6413. Also in connection with other products, do you know anything about using the wood for making acetone, used in the manufacture of cordite?—No, but I think my son here has had experience of by-products, and could speak on that point.

6414. **(Sir Alfred Bateman to Mr. W. N. Angus.)** Do you know anything as to this proposal for distilling the wood?—The question has been mooted for some time, but it has never got so far yet as to put down a plant of any size. Many experiments have been made, and the wood seems quite suitable for the purpose. They say the acetone they get would be in payable quantities and of good quality. But there has never been a practical plant laid down at all to deal with it, so they are practically in the dark yet as to what should be done. Quite lately there have been suggestions to put down plant here, and I believe people have been out from home with that view. Exactly what success they had, I do not know. The inquiries were carried out in a private manner, so we cannot say what the position is in regard to the production of acetone.

6415. Would it be an advantage to the industry?—A great advantage, because it would relieve the planters of a great deal of waste stuff that to-day is not used simply because it cannot be sent away in a payable form.

6416. It was represented to us that the proposition had been put before the War Office unofficially?—Yes, I believe that that was done some six or seven years ago.

6417. When Sir Matthew Nathan was Governor?—Quite so, but they appear to be able to give us no assurance that there would be a market for it.

6418. Is the wood waste now?—Large quantities are waste, quantities that are a considerable distance from rail simply because there is a shortage of labour, and in order to cope with this, of course, a large quantity of labour is required for getting this timber. We sell it now principally for fuel and mine props. The majority of it, however, is not suitable for mine props, being crooked and rather small, and that is suitable only for fuel. At the price that fuel is sold it would not pay to move it great distances, so, of course, large quantities are wasted in consequence.

6419. You speak of a shortage of labour; what do you pay for the native labour?—It varies very much indeed, but the average is somewhere about 30*s.* a month, with keep and housing.

6420. Is that the highest?—No, that is about the average. It varies considerably.

6421. Is that a fair average?—Yes, for ordinary unskilled labour.

6422. He receives his food?—Yes, it is principally mealie meal that he gets.

6423. **(Sir Rider Haggard.)** Has it ever occurred to you to make this into charcoal?—Yes. We have produced charcoal, and as far as we are personally concerned we have a gas-producing plant in which we use charcoal, and it is excellent, apparently as good as the best English charcoal. We have had reports from England and the Continent to that effect.

6424. Why do not you do it on a large scale?—Simply for the same reason I gave before—the shortage of labour.

6425. It is a paying thing. It is worth 5*l.* a ton?—No, not here. We get about 40*s.* a ton at the outside. Small quantities of charcoal are sold at higher prices than for large quantities.

6425*a*. You talked about boys getting 30*s.* a month with food and housing; at what sum do you lay the cost of the food and housing?—I suppose 6*d.* or 9*d.* a day would cover those.

6426. As regards charcoal, it does not involve much labour—placing this material in the retort?—No, except the collection of the timber and transport to the retorts.

6427. **(Mr. Bowring.)** May I ask something about the process of stripping; what is the process?—As a rule, the trees are nicked at distances of 7 or 8 feet up with an axe. A nick is made round the stem and the blade of an axe is inserted and the bark drawn away down the tree to the roots. That tree is then cut down, the branches cut off, and the remaining bark stripped off. It usually comes off very easily if the tree is in a healthy condition.

6428. There is no soaping or boiling necessary?—No, it is quite unnecessary.

6429. **(Sir Alfred Bateman.)** Are there any other points?—May I bring up this one point? We feel that we are under a certain amount of disability in regard to our market in Hamburg, principally on account of the arbitrary manner in which they decide whether or not the bark is of good quality. They have an arbitration board, on which we are not represented, and cannot be represented, and the awards of the board are entirely on the buyer's side. We feel that to be an injustice.

6430. It is called arbitration?—Yes, but it is nothing of the sort, of course. It is a most extraordinary position. I wondered whether this Commission would be in a position to do anything to help us in that way. Of course, we are taking what steps we can to overcome these other difficulties, but this matter is one rather beyond us.

6431. If they want your bark I should think they would agree with your conditions?—Unfortunately, the market is principally limited to Hamburg. The American market would take a great deal, but I am not certain whether they are sure that they like our bark yet. They are testing the bark at the present moment, but we have no report that they will take large quantities. They may not be in favour of it.

6432. **(Sir Rider Haggard.)** How many tons do you say you send every year?—Last year, 65,000 tons.

6433. Is it increasing every year?—The previous year it was 52,000 tons. It has increased, but there has been a considerable check owing to the drop in prices.

6434. What amount of bark does an average tree give?—I suppose a good tree would give somewhere about 60 to 70 lbs. of dry bark.

6435. **(Mr. Garnett.)** I would ask whether you have any figures showing the increase in your exports since the war?—I have not got them here, but the Union has them.

6436. Do they show a continuous increase?—Yes, a continuous and very substantial increase for the last ten years. I can give the figures for the last twenty-eight years, since the industry commenced, if you wish them.

6437. **(Mr. Campbell.)** You spoke of not being represented on the tribunal at Hamburg; for what reason are you not represented?—Simply because, apparently, they hold the power in their own hands, and they refuse to allow us to be represented. They say the thing is quite fairly conducted, but it is peculiar that we are not allowed to have a representative present.

6438. **(Mr. Garnett.)** Is this arbitration committee in Hamburg a kind of grading committee that sits and adjudicates on the various kinds and grades of bark that are sent? Do they fix standards?—So far as we are aware—no. But if any bark is called into question as to whether it is f.a.q. (fair average quality) as a rule they claim a rebate, and if the rebate is refused it is referred to this court of arbitration, as they call it.

6439. Is there no grade that has been settled on as f.a.q.?—None definitely.

6440. And your claim is that you should have a representative on this arbitration committee?—Yes. We frequently send away bark which is known out here to be fully up to the standard known as f.a.q., because it varies very considerably, and when it arrives

at the other end it is stated to be inferior. What we have noticed is that when the market is falling there are many more arbitrations than when it is rising. That is our fear—that it is not always fair.

6441. **(Mr. Garnett.)** In many export businesses one has to be, so to speak, at the mercy of the surveyor, where these surveys take place at the other end of the world, say in India or China, and your grievance is that where the arbitration board is a sort of packed board, like this one at Hamburg, you have no facilities for your case being watched?—Yes quite so.

TRANSVAAL.

Pretoria, Monday, 30th March 1914.

Mr. IZAAK JACOB HAARHOFF, J.P., called and examined.

(*For the evidence of this witness on "Land Settlement," "Animal and Agricultural Produce," and "Fruit," see pp.* 45, 249, *and* 319; *and on "Mining" see p.* 33 *of* [*Cd.* 7707].)

6442. **(Chairman.)** You have something to tell us as to the timber?—Yes. We have timber in this country—mahogany and teak—and other kinds of which I am willing to submit samples to the Commission, and I should say we have an area of about 10,000 square miles with this timber. At the present time it is barely touched, it is only used for mining props.

6443. **(Sir Rider Haggard.)** What is used for mining props?—This teak and mahogany is being used for mining props. We have at least 10,000 square miles of this timber.

6444. Where?—In the Eastern Transvaal and in the Zoutpansburg district in the north.

6445. **(Mr. Bowring.)** Are all these timber areas taken up by companies and private individuals?—As a rule private people buy the rights from the owners of the farms to cut the timber, and the Government has also a lot of these timber lands.

6446. You say the Government still retain a good proportion of these timber areas?—Yes.

6447. And how are they to be obtained from the Government, supposing you wished to go into the timber industry in this country?—I cannot tell you definitely, but I think there are certain rights which they can acquire from the Government, and I do not think there would be any difficulty about that.

6448. You think they might be obtained on reasonable terms?—Yes, I know that timber rights like those have been sold at 10*s.* an acre.

6449. **(Mr. Tatlow.)** You said that no one here thinks it worth while going into the teak wood business although it ought to be very profitable, commanding such a good price as it does in England and Europe?—Some of it is being used in the Railway Department now.

6450. But I mean for export?—I cannot say.

6451. Why is it that no one sees the possibilities of making money out of such valuable wood which is in such great demand?—Well, the man who has money would rather put it into mines and land, where he can make bigger profits.

6452. Does that mean that the mining industry swallows up all the available capital?—That is a fact, there is no capital for anything outside.

(d) Wine Industry.

CAPE OF GOOD HOPE.

Cape Town, Friday, 27th February 1914.

Mr. JOHN MCDONALD, representing Messrs. H. Collison & Co., Wine Merchants, called and examined.

6453. **(Chairman.)** You have some evidence on the wine and brandy trade, I believe?—Yes.

6454. Have you a précis of it?—I have a short note which is as follows:—

Though I only came out here to reside permanently last year, connection with Collison's dates back about eight years, and have been in virtual control, with occasional visits, for the last four.

At present the home demand for wines is equal to the supply; still, as there is an enormous area of country specially adapted for vine-growing, the question of developing an export trade is manifestly important, and from the failures which have attended the spasmodic efforts made in the past, the question evidently requires to be tackled in a business-like and methodical manner, if it is to achieve even the success attained by Australia, which has not the same advantages as South Africa.

The Government did a great work in establishing the co-operative wineries, but looking at the very excellent wines turned out at such different points as the Government Wine Farm at Constantia and Beyers Kloof, near Klapmuts, it seems a pity they did not retain, to start with at any rate, some control in the appointment of the expert managers, so that the wineries, under skilled experience, might have concentrated their energies on producing the type of wine most suitable for the grapes in their respective districts, as is done in the great Continental wine-growing countries: Spain for sherry; Portugal for port; France with whole provinces devoted to champagne, claret, burgundy, brandy, while the Rhine Valley is given up entirely to hock. In the Cape Province even the smallest farm will give you every variety of wine and deal in dessert grapes as well. This cannot make for uniformity of quality or economy in production.

Without criticising the Excise Bill or the Adulteration Act, it comes within the purview of this Commission to consider how certain provisions handicap the home article as compared with imported liquors. Without doubt, the intention of both parties in Parliament was to improve the quality of the article

sold to the consumer, and if the technical advice on which they relied had been sounder—to say nothing stronger—this object would have probably been attained by going no further than laying down that all brandy must be made from wine. In doing this they have placed South Africa in the unique position of being the only country in the world which has a national guarantee of the purity of its brandy. In all others we know that molasses spirit is blended with their brandy and the whole sold under the latter name and very often as cognac.

In setting up, however, a particular type and giving it an enormous preference, chiefly owing to an ignorant prejudice against a certain type of still, fostered perhaps by certain interests, they have severely penalised 75 per cent. of the wine-growers and compelled the dealer to give the public a spirit most unsuitable for consumption when new, and seriously hampered the manufacturer, as he is driven to produce a brandy for the home market which is quite unsuitable for the large export trade which is waiting the production of a pure light brandy—quiet in flavour and moderate in cost, and which, unlike the wine, requires no pushing or advertising, but will sell on its own merits at the market rates.

Further, a chemical standard has been introduced. Many countries have considered this system, but only one—Australia—has adopted it, and so far even they have again and again postponed putting it into force, and it is now practically certain that they will shortly officially abandon it altogether. Imported cognacs have not to comply with these tests. The chemical standard they could easily arrange from the nearest druggist's shop, but the 22 degrees strength and the stipulation "made solely from wine" would bother them if capable of being enforced.

The whisky standards are a farce. There are three grades set out, but as the finest brands are content with the description "whisky," the definition of pure malt and blended whisky are so much waste paper.

In this connection I might point out that in the Cape Province, by raising the duty on the old or natural type of brandy from 3*s.* to 10*s.* and reducing the duties on whisky from 25*s.* (Customs 19*s.*, Excise 6*s.*) to 21*s.*, a benefit of 11*s.* has been conferred on the imported article. This is important in regard to Scottish whisky, which has everywhere knocked out brandy as a beverage when competing on anything like terms; but looking at the mere question of cost, the initial price of Scotch whisky exported is considerable, because of its high standard of quality combined with age, averaging, as it does, well over five years. But take, say, gin; it can be landed without duty at about 2*s.* per gallon ready to drink, as compared with Cape brandy at 12*s.* in the farmers' hands, full strength and unmatured.

Again, though spirit derived from wine is admitted to be far superior to that from grain, and still more than that from molasses, we find that because the finest gins are made in London and Holland from grain we are prevented from using our much finer Cape spirit for this purpose except at the higher rate of duty, and no guarantee is asked or enforced that the imported gin be made from grain and not from molasses.

If the home manufacturer were not handicapped in this stupid and unfair manner I would undertake to make gin in this country equal, if not superior, to the finest London or Hollands.

158,007 gallons were imported last year, equivalent to 5,000 leaguers of wine, the money for which would have gone into the pockets of the wine-farmers instead of overseas.

I have only been here comparatively recently, but my knowledge is considerable in the export trade. My point rather is that Australia has nearly 1,000,000 gallons to export to England, and South Africa, which is better situated as regards distance and cheaper labour and a perfect climate, has practically no trade at all. At the same time, it appears to me that there must be some effort made to export, as the demand in South Africa is apparently equal to the supply. The supply can be enormously increased, however, from the amount of land which is available for the culture of vines, and which is of very little value for anything else. There is no doubt that as time goes on and they put more land under vines, there will be a surplus of wine, and if they can establish a market outside of South Africa it may be of use for exporting the surplus. I think the advantages are chiefly on the side of exporting the spirit rather than wine itself. Wines have to be of a certain character, and have to be up to a certain fixed standard, and that makes it more difficult to handle successfully. Further, there would need to be a great amount expended on advertising to create a demand for our wines. But if you export brandy, you export an article which is the essence of wine. It is smaller in bulk, and there is consequently less expense in freight for one thing. South African wine will vary in quality and character, but brandy will not, to anything like the same extent. We also know that, taking the English market alone, there is a very large demand for pure wine brandy. At present, almost all the brandy comes from France, where they have no guarantee whatever that it is made entirely from wine. In France they use molasses spirit legally. From South Africa, however, with the new laws there will be a national guarantee that the brandy from here is made entirely from wine, and for that kind there is a very large demand waiting simply till it becomes a marketable proposition. This law only came into force from the 1st January last, and the new vintage has not yet been made. We have no experience, therefore, as to the price or quality of that. But in order to back up my opinion I may mention, for instance, Mr. Pheysey, of the Army and Navy Stores in London. He strongly advised me to press for the making of brandy in preference to wine, because he says there is an enormous demand for pure wine brandy, not merely as the leading supplier for the West End of London, but also speaking for the Continent. In France this year there has been a great shortage of wine, and they drink wine there instead of making brandy of it. There is certainly a demand at present for a pure brandy made from wine, as because of the shortage they have had to fortify their wines with beet molasses spirit. Another firm, Joseph Travers and Son, of Cannon Street, London, have told me that they have had to buy large quantities of Algerian brandy. They gave me samples of it, and I am sure we could easily make similar or even better brandy here; also, I think, at a similar price. They told me they would rather buy Colonial brandy than Algerian, and promised that the moment we could give them that brandy from this country the order was ours. So there is a very strong argument for export from South Africa of good wine brandy. I have mentioned the question of chemical standards and so on, but I do not really think we need press that, because it is under review by the Government, and I think, very likely, that even the advocates of the chemical standard will see the mistake they are making, and that probably the suggestion will be withdrawn. A chemical standard has never been a success anywhere. It was brought up before the Commission presided over by Lord James of Hereford. The question was debated by all the largest chemists in France, and a great authority, Professor Fernbach, said, "If you take the standard of six eminent "chemists who separately examine a standard sample, "they will each give you a different return, because "the personal element must come in in such a test. "It is the same with whisky. If one man examined "a number of samples he will give you correct com- "parative figures. So the chemical standard is a "very difficult one to adopt in practice. Hennessy's "and Martell's both say they could never trust a "chemical standard."

6455. The result of your study of the subject is this: that South Africa should concentrate upon brandy rather than upon wine?—I have come to that conclusion—because it would be easier, and there is a much better market without the trouble, and I know that the Government here, under present circumstances, do not see their way to spending a large sum to advertise our wines in the European market. And

there are other great difficulties in the way. But brandy is a thing which you can sell on a sample.

6456. Would the return to the grower be equally as good?—Yes, quite as good.

6457. What steps would you suggest taking to bring about that desired result?—A recommendation that the chemical standard be abandoned and all brandy made from wine to be on the same footing. The demand over the whole world is for a brandy made from wine, and they should absolutely prohibit the making of spirits from anything else as far as the Cape Colony is concerned, leaving to Natal the production of cheap spirit from sugar molasses.

6458. **(Mr. Campbell.)** In this précis you mention "co-operative wineries" as doing a good work. What are these "co-operative wineries"?—The Government put them up in certain districts, and the farmers, instead of pressing the grapes themselves in the old-fashioned way, send the grapes to the wineries, which are run on the French plan. They are all equipped with the newest machinery. They make the wine there and then it is sold.

6459. Are they Government institutions?—The Government spent about 80,000*l.* in putting them up, and the farmers had to pay so much to the sinking fund.

6460. Who manages them?—That was left to the farmers in the district.

6461. And you say they have been a success?—From the farmers' point of view. They did not pay the sinking fund, but the Government has let them off that.

6462. It has improved the quality of the wines and increased the trade?—Yes.

6463. In your statement you say: "In setting up a "particular type and giving it an enormous prefer-"ence." What does it mean?—In the cognac district of France they make cognac brandy, and that brandy is made from wine which is a very thin and acrid wine. It is made at a very low distillation strength—22 over proof. Well, elsewhere brandy is made at a higher strength, the reason being that only thin light wine will manufacture a brandy at lower strength. This point was not brought up here, and they did not recognise that there is only one small district in France where you can do that. They thought you could make it here as well. They therefore gave a very large preference to wine at 22 It was a mistake.

6464. Does that refer to the South African Government as setting up a particular type?—Yes. The duty on brandy of the cognac type is 5*s.*, and on anything above that it is 10*s.*

6465. In another paragraph you say: "The Govern-"ment, by making it incumbent to manufacture all "brandy from wine, has placed South Africa in the "unique position of being the only country in the "world which has a national guarantee." But is it not a fact that the Australian Commonwealth also compels the production of brandy from grapes?—Not to my knowledge. It may be so.

6466. You also speak of the increase of the duty on the old or natural type of brandy from 3*s.* to 7*s.*, and the reduction of the duty on whisky from 25*s.* to 19*s.*, and you say that a benefit of 11*s.* has been conferred on the imported article. With respect to those figures, you put down the customs at 19*s.* and the excise at 6*s.*, and you calculate the total duty as 25*s.*; I would ask—was excise levied as well as customs?—Yes, in the Cape Province. Here we had a customs duty of 19*s.* and an excise of 6*s.* That was not in the Transvaal or other Provinces.

6767. Later on, you say in respect to gin, it can be landed without duty at about 2*s.* per gallon ready to drink, as compared with Cape brandy at 12*s.* in the farmers' hands. There is a duty on gin; what does it amount to?—21*s.*

6468. What is the excise on Cape brandy?—Now 10*s.*

6469. So the prices are comparatively imported gin 21*s.* duty and 2*s.* value of spirit, that is 23*s.*, and Cape brandy 12*s.* value of spirit and 10*s.* duty, 22*s.*?—I take the market price as 12*s.*, but the Cape brandy is of higher strength than the gin. The gin is ready for drinking. It is higher proof strength, so it is not quite so far apart. The actual cost of that brandy would be more like 8*s.*

6470. So those figures rather show that Cape brandy ought to be able to compete quite readily, do they not?—Yes, it was only the question raised before that there was an enormous difference between the duty charged on gin and the duty charged on the brandy when it was only 3*s.* Cape brandy rose last year from 6*s.* to 12*s.* 6*d.* So they brought the duty up to 7*s.* Some people who do not care about the flavour of Cape brandy really were nevertheless ready to drink it because of the difference in price.

6471. You refer to whisky cutting out brandy as a beverage. But that is not peculiar to this country, is it?—No, I refer to the whole world.

6472. The method of imposing duty in England operates as seriously against the Cape wines as the Australian, does it not?—I tried last year through our association over there to get a remission of duty in the case of Colonial wine, but our amendment was not carried.

6473. I mean that the method of imposing duty operates against the South African wines?—Yes, the Colonies get no preference. Our own trade holds that we should.

6474. And the lower spirit content of French wines allows them to be imported at better rates of duty than South African wines, which have a higher spirit content?—No. Because 30 degrees is the English limit, and our wines are under that. They can compete on equal terms, but they get no preference.

6475. **(Mr. Lorimer.)** In respect to your statement as to the failure of South Africa's efforts to establish an export trade, do you refer to the failure to find a market?—Yes. The spasmodic efforts of separate wine merchants are responsible for the failure. At different times the Government shipped wine, but in the end they had to sell it by public auction, or private tender, and had no return.

6476. Was that on account of any defect in the wine itself or the management over there?—Probably the management over there. Because South African wine is unknown, and unless it is advertised, and has a standard, it is at a disadvantage.

6477. Was it tested here first?—Yes. I do not think it was so much a question of the quality as that there was no market.

6478. But, still, if the wine was good enough there must be somebody to blame in not finding a market?—If a wine is unknown and goes on to the market without any pushing, nobody knows what it is.

6479. Is it the fault of somebody here not advertising it?—Yes.

6480. Would you kindly explain what the object of the Government was in establishing these wineries?—To improve the manufacture of the wine.

6481. But what steps did they take? Was the co-operation in regard to the quality of the grapes or in the method of preparing the wine?—The method of manufacture.

6482. While they took the initial steps they stopped short just when it came to the management of them?—Yes.

6483. What was your complaint about the excise duties?—Only that they vary. 5*s.* to 10*s.* for wine brandy.

6484. Have you made representations to the Government?—Yes.

6485. **(Sir Alfred Bateman.)** In regard to the wine, is it not the case that there is no uniformity in wine of the same brand?—Yes.

6486. In colour or taste even. We had your wines on board ship, and we found that there was a difference in two bottles of hock of the same brand?—Yes, in regard to wine, there has undoubtedly been a difficulty. The wine varies with each vintage, and each manufacturer gives you a different wine each time. If you call for Hermitage of different merchants out here, you will get a different kind each time.

6487. If you order a certain brand of wine you expect to get the same thing always?—Yes. But it has been the curse of South Africa. Everybody has

been allowed to do as he pleased. I suggest they should draw up a standard of uniformity for each brand and nothing but wine conforming to that standard should have the Government stamp, and no other wine should be allowed to be exported.

6488. In regard to spirit, can you provide that the spirit is always wine spirit?—Yes, but not by analysis, only by supervision.

6489. Chemical analysis would not tell you if there was a certain amount of molasses spirit in the brandy?—You would not be able to tell in regard to whisky more easily than brandy.

6490. You think it would be possible to guarantee a market for spirit imported from this country in the shape of brandy?—Yes. I have an order now waiting. There is a large market in London.

6491. What do you want the Government to do?—If they left it alone as they started, that only brandy made from wine was allowed to be made here, that would be sufficient.

6492. You say you cannot tell them by analysis?—It must be manufactured under supervision.

6493. You suggest it should be manufactured under control?—Yes.

6494. **(Sir Rider Haggard.)** Is there any amount of land capable of producing wine here?—Yes, a huge quantity round Paarl, Stellenbosch, and that district. That light sandy soil is all eminently suited for the purpose.

6495. Can that land be bought at a reasonable price?—Yes.

6496. Therefore, there is no limit to the amount of wine brandy that might be produced?—No.

6497. And you have informed us that there is an eager, if not an unlimited, market for your brandy?—Yes.

6498. Therefore, you have within your grasp a most profitable enterprise if only those responsible will take the trouble to organise and set the thing going?—Yes.

6499. Perhaps it would not be too much to say that it would bring great wealth to the country?—Yes. I have so much faith in it that I have put my two sons into the business.

6500. Could you, with proper care, grow some really fine wines here?—Yes, I think so. They have got to choose their grapes, and lay them out more methodically than before. You have the climate and a soil admirably suited to the growth of good wine.

6501. That should produce a really fine wine?—Yes.

6502. It is merely a matter of enterprise, of skill, and of organisation?—Yes.

6503. And the reward lies in the grasp of those who choose to take it?—Yes.

6504. What is the average value of this land?—I am afraid I cannot tell you that. Where you have the land already under vines it is very valuable. A man who is capable of bringing in and can use the land can get the land quite cheaply and get on well.

Cape Town, Wednesday, 4th March 1914.

Senator the Hon. Sir J. H. MEIRING BECK, M.D., called and examined.

6505. **(Chairman.)** I understand that you are prepared to give evidence in regard to the wine industry?—I have been asked to come here to-day, and shall be glad if I can be of any assistance.

6506. Would you prefer to make a statement or answer any questions?—I am not exactly prepared to make a statement at such short notice.

6507. With regard to the leading facts regarding past development and the present prospects of the wine industry here, what are they?—With regard to the past, of course you all know that the wine industry is an old industry, which was brought here at a very early period of our development by the early pioneers. It was established where it is to-day chiefly in the Western Districts. It became an enormous factor in regard to closer settlement, and it has in consequence always been a very powerful factor in the development of the country, owing to the fact that it brought a very large number of agriculturists sufficiently close together to develop an organised life. At a comparatively early period these people developed socially, and as time went on became a great benefit to the country, and from that date, I think, we may date the beginning of our development in education and many other departments of social life. I mention this to show that it has always been a very great factor in improving the conditions of the community. I think I am correct when I say that from the very earliest possible times it was found that the vine would flourish here as well as in any other part of the world, and that there was almost endless scope for cultivation.

6508. Can you say anything as to the actual increase of production?—Yes; I do not know that I can give you very absolute figures, because at present our statistical department is not arranged in such a way as to enable one to give absolutely accurate information; but, roughly speaking, we are producing to-day about six million gallons of wine and about one-a-half million gallons of spirit. I may say that our output to-day is very much what it has been for a considerable period; there has not been a great deal of expansion, but it is partly due to the fact that some years ago there was a serious set-back owing to the introduction of phylloxera. We are now beginning to overtake the position we enjoyed before the introduction of that disease, and I think that the amount of wine we are now producing is about the same as it was immediately prior to this disease.

6509. What can you say in regard to the quality of Cape wines?—I do not think that there can be any question that the quality has improved enormously of late years, and that to-day we are able to put out probably as good a wine as most other countries would be able to do. In connection with this I have here an article which may be of use, inasmuch as it expresses an opinion, not of anybody interested, but an authority which I think will command respect. Some years ago Messrs. Sedgwick and Company, a large firm of wine merchants here, were desirous of testing the quality of Cape wines, and sent a considerable number of ordinary wines, such as are sold here, to England; those wines were analysed and examined by people in England, and the "Lancet" published an article, part of which I hope I may be allowed to read. It is only a very small extract.

6510. Will you give the date?—It was somewhere about 1908, I think. It says, "Year after year the "quality of wines produced in South Africa improves. "In the past they have shown a somewhat high "alcoholic strength and a relatively large proportion "of sugar, but now with regard to the bulk of these "wines there has been a great improvement." I may say here that it was the general idea formerly that only heavier wines could be successfully grown in the Cape owing to the richness of the soil and the strength of the sun. Well, I would like to say that is not so. We have a very wide range of temperature, and there is a great difference in the climate between one portion of the country and another. You will see the northern pine flourishing almost side by side with the sub-tropical palm, so that we have been able to grow the lightest as well as the heaviest wines. Evidently the "Lancet" had that idea also, as it goes on to say, "The above firm" [that is Sedgwick and Company], "have

" sent to us specimens which, on the contrary, are " wines delicate in character and approach the light " wines produced in Western Europe," and it proceeds to give an account of individual examples of our wines such as Cabernet Sauvignon, which is a wine of the Burgundy type; Hermitages, which are of the claret type; Drakensteins, which are of the Moselle and Rhine wine type, and so forth, all of which gave most satisfactory results; and as regards constituents, it spoke favourably of the alcoholic strength, the percentage of sugar, and so on. That was some years ago when these returns were published, and I am pleased to say that there can be no question that since that time there has been a very great improvement, and I have no hesitation in saying to-day that we are able to produce, both as regards heavy and light wines, as good a quality as anywhere in the world wherever wines are known and appreciated.

6511. I see that your present production is about six million gallons of wine and one and a half gallons of spirit. Now how much do you export?—A very small amount. We have never really endeavoured to export our wines as Australia has.

6512. All your wine is taken for local consumption?—The bulk of it undoubtedly is, but a small amount is exported.

6513. Is it possible to give the average of your price for the ordinary quality of wines and spirits?—I think so. I am speaking as a grower, of course, and not as regards the consumers' price. As a grower, we are at present getting from 5*l.* to 10*l.* per leaguer, which is more or less 127 gallons; 10*l.* for the very best, and 5*l.* for the ordinary wines.

6514. That is 1*s.* and 2*s.* a gallon?—Well, you may say from 6*d.* to 1*s.* a gallon.

6515. Now as to the comparative profit in wine and spirits. Is it a fact that the production of brandy is taking the place of wine?—At present, yes, it is to a large extent, but I do not think that is due to the fact that there need be more profit in one than the other. It is rather due to the fact that for various reasons the community have rather developed the habit of spirit drinking than wine drinking. The result is that to a large extent growers, in order to get a market, have gone in for the marketable commodity.

6516. Is all this spirit used for drinking?—Yes.

6517. It is not denaturalised?—No, but during the last five or ten years there has been an increased consumption of wines, and we are always hoping that we shall increase the consumption of good wines as we go along.

6518. Can you tell me what proportion of the total consumption of this country is of wine and what is of spirit? I mean as compared with the wine and spirit imported?—Well, we do not import a very great deal of wine here, only the superior wines such as champagnes and clarets. We import a small quantity of those, but our imports are mainly in the form of spirits. I have here a small paper which I wrote in 1909 on the subject. In that year, 1909, I find our imports amounted to 447,000 gallons of whiskey.

6519. What is the total consumption of the country; I understand you furnish about three-quarters?—I should think we furnish rather more than that, but three-quarters is probably near enough.

6520. And I understand you want to supply an even larger proportion?—Yes.

6521. By what section of the community are the wines consumed?—Well, in the past, to a very great extent they have been consumed by the labouring classes, but I am glad to say that with the improvement of wines and also the better appreciation of their qualities, a considerable consumption is now arising among the higher grade of consumer, and we are to-day developing a considerable consumption of high-grade wines.

6522. Are there any points you would like to bring out?—I should like to say that I think that by the judicious employment of capital and enterprise there is an enormous future before the wine industry in this country and enormous prospects, particularly for the comparatively small landowner, because you require a comparatively small patch of land for the purpose of growing vines; and then there is another reason why I say that. Land which is fit for growing vines is also fit for other purposes. For instance, we have lately developed a considerable industry for the growth of Turkish tobacco, which the wine farmer could combine with the wine industry. It could be developed on comparatively small holdings with very reasonable prospects of success. The same thing applies to fruit trees wherever the vine grows.

6523. Now as to the comparative profits to be made in this branch of cultivation as compared with other kinds of farming. What have you to say upon that point?—I do not think that there is any question that given good years and reasonably favourable circumstances, wine culture will compare favourably with any other form of agriculture that I know of.

6524. At your present level of prices?—Yes. I wish to say here there is another reason why the cultivation of the vine gives a comparatively certain guarantee of success, that is, that in addition to the vine itself there is to-day a large market for the fruit of the vine, I mean grapes for table purposes, and raisins, so that we have an extra market in that direction, and the grape grower is in a favourable position. He has a crop which he can grow on a small patch of ground, and he can cultivate other things on the same ground, and it gives him, so far as the vine is concerned, several strings to his bow.

6525. **(Sir Jan Langerman.)** What do you calculate to be the acreage of ground under vines to-day in the Western Province?—In the absence of really definite statistics it is not possible to say, but I should think about 25,000 acres.

6526. Then you think that is capable of considerable expansion and that there is a lot more land available for the purpose?—Yes, unlimited expansion.

6527. What would be the price of such land if one wanted to cultivate vines?—Of course, the price must necessarily vary according to where you propose to buy. Many of these western districts are fairly filled up, and in those cases the prices are higher than in other districts, but, roughly speaking, I should say that land in the western districts of the Colony capable of bearing vines should be worth from 10*l.* to 40*l.* an acre.

6528. How many acres would a new-comer require in order to make a decent living?—What do you call a living?

6529. Suppose he got 10 per cent. on his outlay?—Are you talking of a man who works himself?

6530. I am talking of the man who buys a bit of ground and wants to start vine farming.—Such a man would require perhaps an income of 200*l.* to 300*l.* a year and he could make that on a very few acres.

6531. He would require a small capital to start with?—Yes, comparatively small. If the individual starts work himself he puts his own back into it and he would probably have to put up the money for the land as well as the planting, and planting is comparatively expensive. I should put it down at 30*l.* an acre, but he would have the advantage in three years of a good return.

6532. Suppose a man puts a capital of 1,000*l.* into the business and is able to tide over the three years, he would then be able to look forward to an income of from 300*l.* to 400*l.* a year?—Yes, I should say that if he is successful in obtaining suitable land, that result is quite possible.

6533. Is there much scope, then, for land settlement purposes?—I think so.

6534. There is good hope that in the future grape growing and wine farming, with other classes of small produce, will provide quite a large scope for settlement?—Yes, that is why I say a man in this line of business is not confined to one thing only; he has other directions in which he can develop.

6535. **(Mr. Garnett.)** We have had it in evidence here that the crops produced from the vines are very heavy?—Yes. Some years ago a number of interesting papers were published by a gentleman who devoted a great deal of attention to this matter—Professor Hahn—and he came to the conclusion that in some of our districts the yield was probably greater than in any other vine-growing land in the world. We have districts

like Robertson and Montague where the yield is simply prodigious. In Stellenbosch and Paarl, however, we come down to conditions which approximate more to those obtained in Europe, but even there the yield is relatively large.

6536. It was also stated that a good deal of the so-called grape brandy even in the cognac districts of France was not absolutely pure grape brandy. Have you anything to say?—In France I have no doubt it is true.

6537. You are of opinion that there are great prospects in this country for an industry making a pure grape brandy?—Yes, because our grapes are cheap and easily grown, and, given suitable varieties of grapes, there seems to me no reason why we should not produce a good brandy. Our land is also comparatively cheap.

6538. **(Mr. Bowring.)** In many cases the farmers sell the grapes on the vines, do they not?—Yes.

6539. Do they not manufacture wine at all in such cases?—Yes.

6540. Can you tell us about the value of grapes which are sold in that way?—Well, of course, where farmers sell in that way they naturally sell for local consumption: for export purposes they pack them rather carefully. But as a rule for South African consumption, they will get from 3*s.* to 4*s.* a basket containing about a bushel delivered to the nearest station.

6541. Those would be grapes for the table, I presume?—Yes.

6542. But is there not an enormous quantity of grapes sold for wine-making which are sold as they stand?—No. As a rule the grower makes his own wine, but of late years we have developed a few co-operative associations; they buy the grapes in one sense. All the members bring their grapes into the co-operative winery and they are paid so much per ton, but they are personally concerned in the making of it; they make the wine co-operatively.

6543. Could you give us an idea of what the grapes are worth per ton?—From 4*l.* 10*s.* to 5*l.* when sold that way, but as a rule where grapes are sold like that, if any profits are realised, there is always a prospect of bonuses being subsequently declared to supplement that price.

6544. **(Sir Alfred Bateman.)** I understand you to be of the opinion that the census returns are scarcely accurate?—We have never really had an organised statistical department.

6545. The figures are not quite the same as yours. For 1911 they show seven and a half million gallons of wine were made, whereas I think you stated the figure at six million?—It is quite possible, we have varying quantities every year and at the present time, I should say, there is a tendency for some expansion.

6546. For brandy they only give 620,000 gallons and I think you gave the figure as one and a half million?—Yes, I have taken my figures from a report which was issued by a commission which sat to enquire into this matter.

6547. Probably yours is the latest intelligence?—No, I do not think it is as late as yours, but I do not know whether that would apply to all the spirits. I did not mention brandy in particular, I said wine spirits. Possibly that may account for the difference.

6548. What market is there for a great deal of wine? You see people in England drink less and less wine every year so you could not expect a very big market there. Where could you send it to?—I think we have a sufficient market locally. Six million gallons is nothing for our population.

6549. Do you mean for the white population?—Just think for a moment of the enormous production of other countries. Granted wine drinking instead of spirit drinking habits, the white population here and the civilised portion of the coloured population should be able to consume a great deal more than is now produced.

6550. Are you in favour of manufacturing brandy under control? Would you recommend the State to superintend the manufacture of brandy and see there was nothing in it but the pure grape juice?—That is practically what we are doing now. Our Excise laws and Adulteration laws are probably the most stringent in the world and we are to-day controlling the manufacture both of wine and spirits very thoroughly. Our legislation on this subject is probably far in advance of any other legislation that I know of anywhere, and there is no question that our wines are extremely pure. In regard to Excise, as you know, there is a certain difference made in the amount of excise levied on wine brandy as compare with other products. Well, the result is that a fairly strict Excise supervision is maintained. You may say that the thing is practically controlled.

6551. Then you think the making of brandy from grapes is controlled already?—Yes, practically. It may not be legislatively controlled, but owing to the strict Excise arrangements the control is there.

6552. **(Mr. Sinclair.)** Under exportation of wine at present, is there any system of Government certification of quality?—No, I do not think there is. As a matter of fact, as I have already said, we have not developed anything very much in the way of export. A certain amount has gone forward in various directions, but we have no Government supervision.

6553. Do not you think that if there is a prospect of your being able to export largely in future it would be well to have a system of grading?—Yes. I can only see a benefit arising from a guarantee to the consumer that whatever he buys is good.

6554. There is a certain amount of variation, is there not, in the same variety of wine produced to-day?—Yes. Well, there is everywhere in the world, because the vintages vary from year to year.

6555. If there is grading up to a certain standard it would help the sale of your wines in other countries, would it not, when you are in a position to export?—Yes.

6556. I suggest that the grading of produce in some of the Colonies has made an enormous difference to the exports?—I do not think one can doubt that for one moment, we have gone a considerable way in introducing grading in various directions.

6557. It has scarcely reached the time when it has become practicable?—No, not in regard to wine.

6558. **(Sir Rider Haggard.)** You told us that the price paid to the grower is about 5*l.* 10*s.* for a leaguer of 127 gallons?—Yes.

6559. What price is paid by the consumer?—I should be sorry to say, it depends on a hundred and one different things. Individual sellers have a knack of putting on individual prices. I have this much to say, however, that the consumer pays a great deal more than he ought to pay.

6560. If you want to make your wines popular, ought there not to be some system under which fair prices are charged to the consumer?—Undoubtedly, that is one of our chief troubles in this country.

6561. You are aware, no doubt, that in France wines are sold extremely cheap?—Yes.

6562. Have you anything in view or any proposal to make to deal with that aspect of the question?—For years past a number of us have tried to move in that direction; we have succeeded to a certain extent. For instance, on our railways here, where considerable quantities of wines are consumed, we get them to put the wine forward at fairly reasonable prices.

6563. How do you do that?—The Government caters for the passenger traffic and fixes the price of its wines, and to some extent that has created a standard in the minds of the travellers and people generally as to what they ought to pay, and it has, therefore, had an indirect effect in this direction, but the trouble which we have had in this country is the one which I think you have also experienced in England, namely, the evil of the tied house. Now you are aware that wine is a commodity that you cannot sell except through licensed channels, and therefore if you hand over your licences to a large extent to people who are interested in the sale of other things you can obviously see that it is going to be a very difficult matter to get this particular commodity put forward in the way it should be put forward. I do not wish to be unfair. I think a great many of our retail dealers wish to push

our Cape wines and do what they can in this direction, but there is no doubt at the same time that there is an enormous network of influence in the direction I have indicated which works against us.

6564. That is a matter, I suppose, of great importance that should be rectified?—Yes.

6565. And you are devoting your attention to it, and you recognise that you will never get a great market until the consumer can buy his wines at a fair price?—Yes, it is a matter we have given our attention to for many years and upon which we have concentrated our efforts.

6566. You might be inclined to admit that the future of your wine industry depends on the success which you achieve in that direction?—Yes.

6567. I think it was in answer to Sir Jan Langerman, when you were talking about land settlement and at what price land could be taken up, that you said a figure of 1,000*l.* would represent the capital that was necessary?—Yes. I think a man with 1,000*l.* capital would be able to get a piece of land sufficiently large to enable him to make a start.

6568. And you give a very wide price to that land; anything from 10*l* to 40*l.* an acre, I think?—Yes, and even more in some districts.

6569. Well, considering the quality of the land which is required for this industry, and which, I understand, is not suitable for anything else, is there a very large extent of it in this country?—I have tried to show that land which is suitable for vines will also grow other things; for instance, fruit and Turkish tobacco.

6570. But still in motoring about the country I have been shown great patches of ground which they tell me is suitable for vines, and 40*l.* seems rather high for that ground?—Well, probably you would be able to obtain that for 10*l.*; that is why I mentioned the low figure.

6571. It is only picked land which is worth 40*l.*, I understand?—Yes.

6572. Well, it comes to this, that only a man with capital can attack the position?—Yes. I think for successful settlement in this industry a certain amount of capital would be necessary.

6573. Now, suppose a man came to this country and wanted to go in for growing vines; is there anybody to advise him so that he does not lose his money?—Yes, we have our Agricultural Department, which is devoting a great deal of attention to giving advice to new-comers, and we have the Government experimental stations at Constantia and Elsenburgh.

6574. Supposing a young man turned up with 1,000*l.* and said that he wanted to become a wine farmer, would the Department put someone at his service to advise him about the land and so on?—I have no doubt he would get advice.

6575. You see in some of the other Colonies—Australia, for instance—they make a regular custom of this?—Yes, but we have not got the same system here. Nevertheless, I know many instances where people have been given valuable advice.

6576. It might mean success or failure?—Yes.

6577. Generally speaking, this wine-growing is really only in its infancy, is it not; I admit it has been rather a prolonged infancy?—Yes, viewed from the standpoint of its development.

6578. There is a probability of its being enormously extended?—Unquestionably, if we can get the market.

6579. And if you can supply really good wines at reasonable prices to the consumer?—Yes, I have always held that view.

APPENDIX.

(d) Wine Industry.

Memorandum by Mr. G. A. Thomas, Chief Inspector of Excise, Cape Town.

I have been afforded the privilege of perusing the evidence given before the Commission by Sir Meiring Beck and Mr. J. McDonald, and the remarks which I now offer are intended as either supplementary, as far as statistics are concerned, to that evidence or in correction in respect of points raised with which I am unable to agree.

About 6,592,500 gallons of wine were used in the Cape Province in 1913 in the production of 1,465,000 proof gallons of wine, spirits, and brandy. In addition, 261,190 proof gallons of grape and "dop" brandy (spirits distilled from wine together with husks and from husks together with water respectively) were produced.

The entries for consumption in the Union amounted to 1,241,762 proof gallons of both classes.

The exports were chiefly to States in South Africa.

In consequence of the operation of the adulteration laws a large quantity of grapes is used in the production of grape syrup for the purpose of sweetening wines and brandies, which means another market for the grower.

We had no wine available for export last year, as the whole of the crop was consumed in the Union and surrounding States. If, however, as a consequence of the high prices obtained by producers in 1913, the laying down of fresh vineyards takes place to any considerable extent, prices are bound to fall, as the consumption of wine and brandy in this country being limited, no expansion can take place unless an oversea trade is found. In my opinion, therefore, a person contemplating putting money into land in this Province for viticultural purposes is bound to take into consideration the probabilities of an oversea trade. As matters now stand considerable additional planting is taking place on established farms.

The well-being of the trade is undoubtedly most seriously affected by the tactics of the distributors. Retailers charge too highly for Cape wines and spirits, thereby placing the consumption thereof beyond the means of many moderate people.

I have read Mr. McDonald's evidence carefully and have arrived at the conclusion that the Cape brandy he refers to which would be suitable for export in lieu of wine is the product made from spirits distilled at a high strength (60 per centum over proof) reduced with water and flavoured and coloured. The Excise duty on such spirits is 10*s.* per proof gallon. A different rate of Excise duty was placed on wine brandy (cognac type), viz., 5*s.* per proof gallon, provided such brandy is distilled at a strength of not greater of 22 per centum over proof and that it contains 300 parts of total secondary constituents per 100,000 parts of alcohol.

The imposition of the favourable rate on the latter class was brought about by a desire on the part of Parliament to encourage the production of the genuine brandy on the lines of French cognac. In France, however, no standard of strength or percentage of constituents have been laid down, but the palate and nose are relied on. It is obvious, however, that the Cape standard is useless unless the brandy is matured for at least three years.

I am of Mr. McDonald's opinion that it would be easier to create a European market for our brandies than for our wines. Our brandies, if properly distilled and matured, are excellent. The Government holds a large quantity of grape brandy which has been maturing under unfavourable circumstances from five to ten years. I have lately sampled this brandy and a large portion of it is superior to the French brandies obtained in this country. The question remains, however,

whether it will commend itself to the European palate. Highly distilled spirts reduced with water can be flavoured to imitate any cognac and may, perhaps, be successfully exported, but in the case of low strength genuine brandies their suitability for submission to European consumers has not been proved.

The duties in the Union at present are:—

Wine brandy (cognac type)	5*s.*	per proof gallon.
Dop, sugar and grain spirits	15*s.*	,, ,,
Other spirits made from the products of the vine -	10*s.*	,, ,,

The Customs duty on imported whiskey is 21*s.* per proof gallon.

It will thus be seen that cognac type has a preference of 16*s.* per proof gallon, dop, sugar and grain spirits 6*s.*, and other wine spirits 11*s.*

In making his statement as to the Excise on Cape brandy Mr. McDonald has taken the wine spirits other than cognac type. Cognac type is now being extensively produced at the 5*s.* Excise, and if properly matured would make a very good brandy.

Many of Mr. McDonald's replies I am unable to follow, as, for instance *,—Cape spirits at 65 over proof, not brandy, rose to 12*s.* 6*d.* per gallon in consequence of new legislation. I cannot understand what he means by "they brought the duty up to 7*s.*"

While I agree with Mr. McDonald that brandy export trade can be more easily worked up than a wine export trade, I am of opinion that unless such brandy is made from strong wine spirits, reduced with water and flavoured, no uniformity of quality and flavour can be gnaranteed. The genuine brandies distilled at a low strength vary considerably in consequence of the difference of soil, rainfall, class of grapes, &c., prevailing in the several producing districts.

G. A. THOMAS,
Chief Inspector of Excise.

6th March 1914.

To the Secretary,
Dominions Royal Commission.

* *See* Question 6470, p. 303.

(e) Fruit.

CAPE OF GOOD HOPE.

Cape Town, Thursday, 26th February 1914.

Mr. HARRY ERNEST VICTOR PICKSTONE, Fruit Grower, called and examined.

6580. **(Sir Alfred Bateman.)** I understand that you own a farm which is to be visited by the Commission?—Yes.

6581. I also understand that you are prepared to make a statement about your operations to the Commission?—I am prepared to help the Commission in any way I can.

6582. Will you tell the Commission a little about your operations?—Yes.

6583. How did you begin?—I came out here from California about twenty-two years ago. I had been in South Africa before, and after being in California about three months, I saw what was being done there, and I decided that if fruit could be grown there it could also be grown here. I devoted my attention, therefore, to acquiring a knowledge of every branch of the fruit business with the object of coming out here afterwards. I was there about three years and came out to South Africa in 1892. The Rhodes Ministry was then in power and they were taking an interest in Colonial development of all sorts. I met Mr. Merriman in London. He was taking an interest in fruit. I saw Sir Charles Mills also, who was then Agent-General. He gave me a letter to Mr. Rudd, who was Mr. Rhodes's partner. I met him and through his instrumentality I was enabled to get a start in fruit-growing. In fact, he advanced me the money. When I came out here I brought a good number of trees from California of the leading commercial sorts. I may say the Government here gave me a pass over all the railways with the object of finding out the best spot for fruit-growing. I came to the conclusion that the Western Province offered the best conditions and I decided to start here. It was no use starting to grow fruit, however, until we had the proper trees of the right varieties so as to build up a large industry, and the first thing was to start a nursery. I did that in 1892. I may say that in that year Parliament appointed a Commission to enquire into the fruit business, and the Commission issued a report. I think it was a very valuable enquiry. I was talking to Sir James Molteno yesterday, the present speaker of the House of Assembly, and who was one of the members of that Commission, and he said that the fruit industry commenced from that date. I believe that to be a fact. I may mention that in 1892, there were only a very few experimental boxes exported to London—probably not more than 100—mainly peaches. It had not been demonstrated that it was possible to export fruit, and peaches were considered too delicate a fruit for sending to England. I then started the nursery, as I said, and began to distribute trees. I saw Mr. Rhodes from time to time and he helped me with a farm. I still have that farm and I may tell the Commission that I have exported and shall export from that one farm from 40 acres of land this year more than the entire fruit export of the whole of South Africa eight years ago. That gives the Commission an idea of the way it is increasing.

6584. What about the value of your exports?—I export the main crop. I am exporting from that farm 7,000*l.* this season.

6585. Consisting of what?—Peaches, plums, nectarines, and pears.

6586. **(Mr. Campbell.)** A yearly export?—Yes.

6587. **(Sir Alfred Bateman.)** Do you employ much labour?—In the fruit season a considerable amount. At present I am employing about 100.

6588. Are they mostly coloured?—Yes. And that includes children. My wage bill for coloured people alone is 50*l.* a week. It varies, and it is much heavier in the fruit season.

6589. Something like 2,500*l.* a year?—No, it would run to close on 2,000*l.* Fifty pounds is exclusive of white labour. They are paid by the month. That means pure day coloured labour.

6590. What does the white assistance cost you?—There is extreme difficulty in getting any labour in the busy time. I wrote to Dr. Muir, Superintendent-General of Education, and suggested that the trade in the Western Province was becoming so extensive and the labour question so very critical that the time had

arrived when South Africa should do as California had done, and should allow the scholars from the day schools to work at fruit picking in the holidays. The holidays fit in with the fruit season. I got a very sympathetic reply and Dr. Muir pointed out that this matter rested with the local bodies. He himself was entirely in sympathy with the idea. I may also mention that a friend of mine at Wellington, also a fruit-grower, had about 10 white students—college boys—one or two had degrees in fact. They were farmers' sons. He had them working during the fruit season at 5*s.* to 10*s.* a day. I came in just after him and took over as many as I could, about eight at 5*s.* They were working for me partly on piecework. I used those until they went back to school, and I have one or two still working. They are extremely satisfactory. The ages range from 15 to 18.

6591. They were worth 5*s.*?—Oh, yes.

6592. They knew nothing about fruit?—No, but they were responsible and disciplined. They give no trouble. All that is required is that they are disciplined and willing.

6593. Besides labour, what are your chief expenses?—The boxes and wood wool, wrapping papers, and so on. That amounts to a considerable sum. This year my expenses for packing material are about 1,500*l.* As regard freight charges I have no complaints, but when one sends 30,000 boxes it comes to a fair sum.

6594. How far do you pay the freight?—From Cape Town to London.

6595. To London landed or to the market?—Well, of course, we pay the freight right through, but I am talking about the shipping company's freight. That is simply from Cape Town to Southampton.

6596. Who pays the rail freight from Southampton?—The Union-Castle Company pay everything through.

6597. You do not know what the freight is?—It is deducted from our invoices. Most of the larger growers have an arrangement with their London agents to pay on the other side, and they deduct from each invoice. I think my freight bill this year will be about 700*l.* or 800*l.*

6598. What becomes of this fruit?—My agent is not a Covent Garden man. He is an ordinary commercial agent who does a large business with Ceylon and India. He has an office in London and a branch in Southampton, a branch in Hamburg, and agents in New York and the principal cities of the world. When the fruit comes he is in touch with the distributing agents, and they inform him by wire what they want, and he distributes a considerable amount direct from Southampton. For instance, the American Line and the North German Lloyd Line of steamers go from Southampton, and I believe a fair amount of stuff goes to America from there. He sends also to Hamburg, and I think that stuff goes from Hull. Then, of course, the bulk goes to London, and is sold privately.

6599. It does not go to Covent Garden?—It does not go into the auction rooms, but it goes into the private salesman's hands.

6600. Does it get to the West End?—Absolutely. If you go along Piccadilly, Solomon's shop is full every day.

6601. It is the West End window more than the coster's barrow?—It has been on the coster's barrow, but we must keep it off. You mean that it is a luxury for the rich?

6602. Yes.—No, it is not so. The exports this year will run to 400,000 boxes. Eight years ago the export was 35,000, and last year 220,000. It is 3,330 tons up to the present.

6603. Is the season still going on?—I have 10,000 still to ship out of a total of 35,000. The season is at its height.

6604. Have you been met fairly by the shipping company, the Union-Castle Company?—I suppose we have. When Sir Owen Philipps came out here he made entirely new arrangements. Under the old scheme we used to pay more for the peaches and stuff that fetched a high price, and less for pears and grapes. But the growers met Sir Owen Philipps, and we found him most reasonable. We suggested an all-round freight rate, because sometimes we got more for our pears than peaches, and it was unfair to pay more for peaches and delicate fruit. He fixed up a rate of 40*s.* a cubic ton for cold storage, and 25*s.* in the ventilated hold, and the company guaranteed the temperature of the ventilated hold. At that rate I think it is quite satisfactory.

6605. When did that begin?—Last season.

6606. It is working satisfactorily under the new contract?—Yes.

6607. Is there anything more to say about the growth of the industry?—I think what the Commission wishes to deal with is the possibility of extending Imperial trade. As far as the fruit trade is concerned there is no doubt that it is going to be a very big thing—far bigger than I anticipated. I expect to see within two or three years our export trade run up to 1,000,000 cases, and within ten years to 5,000,000; in other words in about ten years the export will be worth to the Union 1,000,000*l.* sterling. You will, therefore, understand that it is a very important thing—the distribution—if we have very much lower prices in London this year. I do not blame the agents at all, but we have had double as much stuff, and our production has almost exceeded the present distributing arrangements, and I am satisfied that these arrangements will have to be extended in many directions. For instance, a lot of our fruit goes to the Continental towns and the provincial towns, such as Manchester, Liverpool, Glasgow, and Birmingham, and the provincial towns do not pay much. Of course, from a grower's point of view, we want to get the highest prices possible. At the same time we are quite prepared to take less prices. My contention is that if the distribution in the United States and Canada were more extensive, we should be able to get better prices. I noticed the other day that the Imperial Government had placed the consular service at the disposal of the Colonies. I do not know much about the Imperial Consular Service, but I think that service is wanting on the commercial side. For instance, in regard to fruit. Take the American printed matter on fruit, and you will see consular reports from all over the world about crops and markets. I have never seen that from the British Consuls.

6608. You know perhaps that a very large amount is paid in America to the Agricultural Department, which is a very extensive Department, and which has the services of the Consuls. Do you anticipate that it would be of advantage if the Consular Service were used as agents?—No, I do not particularly say that, but I say this, that there should be consular reports. I would like a report showing, for instance, how much Cape fruit was landed in Chicago this year. There is a British Consul there.

6609. You think then they do not give sufficient attention to the agricultural side?—As far as fruit is concerned they give nothing.

6610. Have you ever seen the Board of Trade Journal and the Board of Agriculture Journal?—I have.

6611. Well, in those journals there they have some notices about fruit and its distribution derived from consular reports mainly?—I think they give very little. I say the distribution is unsatisfactory, and I am able to bring facts to prove it. It is a matter for the Union Government, I take it.

6612. Have they made representations to the Imperial Government asking that greater attention should be paid to this matter?—I do not know.

6613. Would you like to have closer periods than annual?—Well, even annual would be better than none. The annual figures would suit us very well, because they would be available to prepare for the following year. For instance, suppose I found out that only 500 boxes of Cape fruit were delivered in Chicago during one season, I would know that something was wrong, because Chicago could easily take 10,000 boxes.

6614. The consular report is for the calendar year, and the dates of publication vary. A great

many of them do not appear before the middle of the next year?—Yes.

6615. You want them out in the first three months?—They should be sent in to the Trades Commissioner's office in London or the High Commissioner's office, so that we could get them out early in the season. I think there would be very little expense attached to them, and I think it would be a great guide to us.

6616. How would the Consuls in the inland towns get the information?—I would only want the Consul to let our Government know how many cases of Cape fruit were sold in his particular place.

6617. But how is he to get that information? Where there is a Customs house, such as Hamburg, the records would no doubt show you the number of cases of Cape fruit, but if they come through London I am not so sure?—Well, the information could be got through the leading dealers.

6618. But the dealers might not wish to supply the information, and it might be difficult to obtain if you had to collect it from the various shops?—Yes, it would.

6619. You think they would give the information?—I certainly think so.

6620. Of course, we could not compel them to give the information if they did not wish to do so?—No.

6621. Have you heard of the new International Institute of Agriculture, which is supported by a number of Governments at Rome and which publishes reports about crops?—Yes.

6622. They do not get as far as fruit, do they?—I know very little about it.

6623. Because it is possible there might be some help given by them. They have different machinery of their own?—We want more assistance in every way

6624. You want more assistance in regard to information about the consumption of fruit?—Yes.

6625. And the great advantage that you have is the difference in the season?—Yes; there is no competition practically.

6626. You have competition from Australia to a certain extent?—Yes, but the Australian stuff comes into London two weeks or three weeks after ours.

6627. **(Sir Rider Haggard.)** What is the average cost of your labour per acre per 100 trees?—I have no figures.

6628. Can you give the cost of the labour in relation to the farm?—We do not work out things in that way. I am an up-to-date farmer myself, and I keep proper books, but to give the information you require is impracticable from my point of view. The trees are now in bearing, and a lot of day labour is required. To keep figures in regard to that would mean a lot of unnecessary book-keeping. I have some orchards in bearing and others not bearing, and it would mean separate sets of books.

6629. You can give us no figures about labour, can you?—I can tell you what I pay.

6630. Do you use much native labour?—Nearly all the labour I use is coloured.

6631. Do you grow any small fruit, such as currants?—No; I grow peaches, nectarines, and plums.

6632. What do you regard as the cost, first of all, of suitable land for fruit in your district, and, secondly, what is the cost of planting it?—The cost is very high now, and land is very difficult to get, and I do not think you could get it at less than 50*l.* an acre. That is really good fruit land, and to plant it would cost another 10*l.* an acre.

6633. Not more than 10*l.*, you think?—The trees would cost 1*s.* each.

6634. What trees would these be? Do you mean peaches?—I mean every sort except citrus.

6635. How many trees do you set to an acre?—Generally 20 feet apart; that is, 108 to the acre.

6636. You can do the planting, digging, and so on for 10*l.* an acre you say?—Yes.

6637. Well, that is very cheap, because I believe the price is about 30*l.* in England?—I would like a contract to do 1,000,000 acres at 10*l.* per acre.

6638. Where do you get the trees?—I grow them.

6639. Well, suppose a man comes and wishes to start fruit-farming who does not grow his trees?—Then he buys. I am a nurseryman myself, and my price is 5*l.* a 100.

6640. And what is your price for citrus trees?—My price is 2*s.* and 3*s.* a tree; for the stronger trees 15*l.* a 100 and for the second size trees 10*l.*

6641. Well, how old are the 2-ft. trees?—The trees are generally on three years' old roots, and we prefer to sell one year from the bud.

6642. Would they be good sorts, such as navels?—Yes, they are Washington navels and similar kinds. The price of the trees in California to-day is 4*s.*, so we are selling them cheaper. There is such a great business going on there, and they seem able to maintain the prices. I think the price we sell at is reasonable, and it encourages planting.

6643. Now, with regard to this land you talk about at 50*l.* an acre. Do you irrigate that land?—No, I do not on my property.

6644. Then it is all dry fruit farming?—Yes, except for citrus trees, and they have to be irrigated.

6645. Would that be irrigable land?—No, that would cost more.

6646. Is the quantity of land which is suitable for fruit-growing very limited in this country?—There is great field for expansion, but at the same time there is a great deal of useless land.

6647. Then really suitable land is not plentiful?—No, not in the Western Province.

6648. How about other portions of the country?—There are other parts of the country certainly that are gradually being opened up to fruit. There is the high veldt in the Transvaal, for instance, which is suitable for apples and the coast belt for different varieties of fruit. There is plenty of valuable land in the Union. But the Western Province land is very high in price; I do not say it is unreasonably high, but it is certainly high and land is scarce.

6649. What is a developed orchard by the acre worth as a saleable proposition, say, when it is seven or eight years old?—Well, for instance, Sir Thomas Smartt bought a small piece of orchard four years old at 75*l.* per acre recently.

6650. Well, that is no great advance on the 50*l.* you spoke of. That is only 25*l.* more than the sum you would pay for absolutely naked land. Do you think this is a fair sample?—Well, it is a big question. At Wellington, where you have land on the hillsides suitable for apricots, you can get it for 25*l.* an acre.

6651. Now about the cold storage accommodation on the boats, is that always satisfactory; I mean does it affect the flavour of the fruit?—I do not think that the cold storage has any result on the flavour of of the fruit provided it is picked at the right time. Otherwise we would not get the price in London for our fruit which we do get.

6652. I have been told by people in the fruit trade that they have considerable difficulty in getting fruit with the proper flavour in London owing to the excess of cold or some other cause. But this is not your experience, is it?—No, it is not.

6653. I have eaten Cape plums in London, some of which I may tell you were quite tasteless?—A good deal of fruit goes forward immature and it is no good. But I have seen the fruit on sale in London myself, and Mr. Solomon of Piccadilly, who is a very sound man on that subject, will bear me out that the flavour of the Cape fruit leaves nothing to be desired.

6654. You are absolutely satisfied with the present system, then?—No, I cannot say that I am entirely satisfied. I think, for instance, that we should have some ventilation on board. We have approached the company lately about it. We want a self-registering thermometer showing the variations, if possible. I am satisfied that there should be ventilation, but the flavour is not affected.

6655. Then you think the cold storage has no effect on the flavour?—It has no effect. It would be impossible for our peaches to sell at 5*s.* each if it had. I am confident about it.

6656. Then you think those plums with no flavour are exceptional?—I think they were probably picked immature. I know they do send a lot of rubbish, and a lot of immature stuff, which is capable of doing us a lot of harm. What we want to remedy that is compulsory inspection.

6657. That does not exist?—No. Sir Owen Philipps realised the necessity for an improvement, and he made a preferential rate giving the inspected fruit a reduced rate, and preference in cold storage accommodation. If there is not enough capacity on the mail boat, the uninspected stuff has to stand over. Notwithstanding this a lot of rubbish goes over.

6658. Is there any movement on foot with the object of securing compulsory inspection?—Yes, we are continually agitating.

6659. Then why do you not get it?—For some reason or other the Government will not give it.

6660. You said just now that there is a good market; do you consider there is an inexhaustible market?—Yes, in the Northern Hemisphere.

6661. Any amount of land you can put under fruit will pay its way?—Yes, if it is well cared for.

6662. The market is endless?—That is my view.

6663. Can this fruit be grown so as to return a good profit to the grower?—Yes, a very good profit.

6664. He can do well out of it?—Yes.

6665. How about the Australian competition, does it affect you?—All I can say is that we are not afraid of it. At the same time, Australia is a competitor. They have not perfected their export yet, and they labour under disabilities and increased distance. But the first boat of the present season left Australia on the 10th February under Government supervision. Their Government takes more interest in the matter than ours. They have made special shipping arrangements; they charter a ship and everything is inspected. It is all pre-cooled, and it is not allowed to go on the ship until every Government regulation has been complied with.

6666. Your remarks apply to citrus fruits as well as to soft fruits?—Yes, in regard to the paying possibilities.

6667. There is no disease which is likely to affect the business in fruit?—There is no disease that we do not understand and cannot manage.

6668. **(Mr. Campbell.)** Suppose anyone from outside were to come to this country to start fruit farming, what capital would he require to set him up on a standard that would give him a comfortable living?—2,000*l.* or 3,000*l.*, I should think.

6669. So that, I suppose, you do not look to any great development of immigration by means of giving encouragement to fruit farmers from outside?—There is a lot of room for it, but the whole conditions of the country are not ripe for it yet. For instance, in California, and I expect it applies also to Australia, men can work a piece of land and can earn enough money to keep going until they can live on it. We have nothing of that sort here. It is only in the last year or two that there has been temporary work for whites in the fruit business. There are not the opportunities for a poor man to start as there are in other lands, but if he has the capital and experience he will do better here than elsewhere.

6670. Is there any possibility of conditions altering here in favour of small growers in the way you speak of?—I think it is bound to come. Personally, I have satisfied myself that there is far more money to be made on the small place than on the big one. A man can make a splendid living on 10 acres, and the future of fruit-growing in this country is in favour of the small grower, although it is extremely difficult for him to get a start.

6671. What influences do you suppose would change conditions so that the small holder will have an opportunity of earning money in this way?—Increased crops that we are getting will be most difficult to handle without good help, and for that we shall have to pay a good wage.

6672. And that extension will employ white labour, will it?—Yes.

6673. Is the tendency toward the employment of white labour or blacks on farms?—I have never seen it started until this summer. I have never seen any tendency in that direction until now. I will give you a case. When I engaged those seven or eight white youngsters, the next day I went round to the field cornet, who is the official head of the district. I told him I had always been a white labour man and had engaged white youngsters, and he thought it was a good scheme. Next day he turned up at my place and said: "I was talking to my son last night, and he has "insisted that I come over and see you and ask if "you would take him on." I replied, "Certainly." He said, "I have always been opposed to white labour, "but now I am beginning to see that there is some-"thing in it." You see, we have had a lot of what I may call the "scum" of white men who have drifted here, and they drink and live loosely and have nothing in their favour. They mix with the coloured people and it has created a prejudice against white labour, but if we can only get a respectable type there is no doubt that every year will see more chance.

6674. We hear about the stigma attaching to labour; is there any truth in that?—Yes, that feeling permeates the whole country.

6675. Do you think that that trouble is gradually being ameliorated?—Some of us are trying to do our best to ameliorate it. We have a dried fruit co-operative company at Wellington, and it handles a large amount of stuff—two-thirds of the dried fruit is handled by them—and we were left without labour. We formerly employed coloured. I am chairman of the company and the directors decided that this would be the time to try to utilise white labour. In the past we have had from 20 to 30 coloured men packing, and we decided that we would try whites. One of the directors went to see the Dutch Reformed minister, and they were all keen, and the long and short of it is, that we have been able to get white girls and we have taken on a very respectable type of girl of Dutch family as forewoman. She is really setting an example to the others. What is required is an example. There is a deep-rooted prejudice against work both on the part of men and women, and this prejudice we have to drive down, and I am certain that we have started driving it down, and in a few years there will be a better condition of affairs.

6676. You look forward to the future with hopefulness to the extension of fruit-growing and the gradual introduction of people from outside?—Yes, the gradual increase of small holdings.

6677. I think you said there is sufficient land to extend the industry almost indefinitely?—There is ample land about the Union.

6678. In all the Provinces of the Union?—Yes.

6679. With regard to the difficulties of transport; you had some difficulty, did you not, or the growers of peaches here had some difficulty, about the transport of peaches to London?—Yes, we do have difficulty at times. But really the whole thing is the weather. You cannot export peaches to London to arrive in good condition after rain. The people blame the steamship company, but it is not right to do so. I may explain that I keep check boxes of every shipment, and I open those boxes in my office four days afterwards, and I can tell in what condition that shipment will arrive in London. But if we had ventilation in the cold chambers this drawback would be mitigated.

6680. Do you as growers take any means of checking temperatures and so forth in the holds of the vessels? Do you use the self-registering thermometers?—No, we have tried the system some years ago. We put thermometers in the boxes, but we found that the rolling of the boat in the rough sea prevented them from working. I understand that now there is a thermometer which is suitable for the purpose, and that is what we want the company to introduce on the ships.

6681. You know that the Canadian people use them regularly?—It should be done.

6682. Have you any fruit-growers' association here to protect the interests of the farmers?—We have no

association here. In the districts we have farmers' associations, and the executive of these attends the Agricultural Union Congress, and we are represented in that way, but we have no organisation of fruit-growers pure and simple.

6683. I would suggest that an organisation of that kind would be of very great assistance?—Yes, very great.

6684. No one has had the time or inclination to start such a body?—It has often been tried, but there seems to be no cohesion.

6685. With regard to the difficulty about peaches. Did not the Imperial Institute in London make some investigations into the question of carrying peaches from South Africa to London?—I have not heard of it.

6686. Could you give the Commission some figures showing what is the cost per case of fruit from farm to market?—Yes. The complete cost of one box of fruit from farm to Covent Garden Market, covering everything except value of fruit, would be as follows: Box, wood wool, and wrapping paper, 5*d.*; freight, 6*d.*; railage to docks (including cold storage, bill lading, &c.), 2*d.*; London agents' consolidated charge (covering all expenses, including repacking, if necessary), 2*d.*: total, 1*s.* 3*d.*, plus 7½ per cent. commission, which varies according to value of fruit. The size of box would be 12 × 18 × 3, and its contents 18 to 28 fruits.

6687. With regard to the Hamburg market, do you make any use of that?—Yes, every week my agent sends stuff over there.

6688. How do you find that market compares as to prices realised and as to conveniences given with the London market?—My agent reports very favourably about it.

6689. As to price and method of distribution?—He has not gone into that, but I know that Hamburg is a great distributing centre for the Continent. I can only judge by the prices obtained, which are satisfactory.

6690. Is there an increasing tendency to export to the Hamburg market?—Yes, *viâ* London.

6691. You think that Hamburg will be a serious competitor with the Old Country for South African produce?—No, I do not think so.

6692. You think that the bulk of the trade will continue to go to London?—Yes. There has been a movement on behalf of the German lines to try to get us to consign direct, but I do not think they have met with any success. We had also the Trades Commissioner from Hull out here last year.

6693. Did he meet with no success?—We do not ship direct to Hull. Hull gets the stuff through the London agents. The majority of the growers believe in consigning to one agent and letting him do the distribution. We prefer to distribute through the London house.

6694. I suppose the Union-Castle Company gives you a through freight direct from South Africa to the place of consignment?—I always consign to Southampton.

6695. I presume you are in favour of establishing a much more specialised Government department here, not only for giving attention to the fruit industry, but to deal with the care and oversight of the fruit before shipment?—I am in favour of thorough Government supervision as in Canada and Australia. In Canada, if you send a box of fruit for export and it falls below the standard they fine you 50 cents.

6696. You are in favour of considerable extension of Government activity?—I am in favour of strict Government supervision over our exports.

6697. **(Mr. Garnett.)** Returning to the question of Government inspection. How do the laws you have mentioned in Canada and Australia compare with the regulations of California in regard to the inspection of fruit?—There is no Government inspection as far as I know in California. It is handled by large associations as a rule. But the Canadian and Australian Governments do no inspection except of exports. I am in favour of export inspection, but, as far as I know, the United States have no regulations governing the exports. I do not know of any.

6698. The Californian fruit does arrive in London in wonderful condition?—Yes, it is always standardised. They have been in the business for forty years. It is a perfected system.

6699. By the growers themselves?—Yes.

6700. A voluntary arrangement of their own?—Yes, they have found that it is the best way.

6701. What you would like to see is that standard approximated to in some measure by the Government?—Yes. In regard to our citrus export the Government are already standardising for us. They have taken it up on Californian lines. To pass the Government inspector you must standardise your oranges. It is compulsory.

6702. I gather from your evidence that any complaints about the quality of fruit arriving in London must not be set down so much or at all to the conditions of shipment, but to its being packed immature or shipped after rains?—My opinion is that there is very little loss suffered through the fault of the steamship company during the last two or three years.

6703. I think you have been concerned in the introduction of special plums from California to this country?—Yes.

6704. If it is not an improper question to ask, how did those very expensive grafts turn out?—They have justified themselves. I paid 50*l.* for a stick of wood about a foot long. The apple plums, so highly prized in London, are from one of these. I imported recently some Jaffa oranges from Palestine—some scions for grafting. They have taken me some years to obtain.

6705. We may take it, I suppose, that these costly experiments are thoroughly justified commercially?—Yes.

6706. May I ask if you sell your fruit here or is it sold on your account?—I give my agent absolute control of everything and he can send the stuff where he likes.

6707. The fruit is sold on your account?—Yes.

6708. Is that the general practice?—I think so.

6709. With regard to small farms; you are of opinion that it would encourage white people to take up active work in orchards themselves?—An Englishman came out the other day. He had about 1,000*l.* and he wanted a small farm. My advice to him was to work on different farms for at least a year and then to buy. He has done so. He is already earning 12*l.* 10*s.* per month. Then when he is ready he will be able to invest his money to advantage. There must be a small capital and a willingness to work.

6710. You are of opinion that the fruit-growing will aid in fixing a white population on the soil?—Yes.

6711. In regard to the price of land; you said 50*l.* an acre for the best land and then spoke of purchase at 75*l.* with a four years' old growth?—Yes.

6712. Are the qualities of these lands absolutely comparable?—No, the quality varies very much. When I mention 50*l.* I am confident that you cannot touch the highest quality of land at less than 50*l.*

6713. Then 75*l.* for that orchard was a cheap purchase?—Yes.

6714. **(Mr. Sinclair.)** I gather that you, as seller, consign to your agent to sell the fruit on your account, and generally speaking you are satisfied with the handling of your fruit?—Yes.

6715. I think you said that that system was pretty general?—Yes.

6716. Have you heard complaints? We have had complaints made to us in Australia of the handling of fruit by the agents in London?—I have heard of complaints, but I have had the same agent for fifteen years and never changed.

6717. Then I gather you do not attach much importance to complaints that you have heard of as to the treatment of fruit?—Well, I know there is a fight in London between the private salesman and the auction, and that leads to trouble at times. I do not attach much importance to it.

6718. You favour, do you not, the system of Government grading of fruit before it is allowed to be shipped from here?—I favour a system under which no stuff is exported unless up to the standard fixed by Government.

6719. Is one effect of there being no system of grading that indiscriminate classes of fruit go to London markets?—There is a system of grading, but it is not compulsory.

6720. Would you tell us what the system is?—Mr. Bulmer, the next witness, will be able to do so. He is the Government Inspector.

6721. But you can tell us as far as the system affects your shipments?—I am satisfied with it. It is arranged by the Government in conference with the growers. My complaint is that it is not compulsory.

6722. Is there any systematic State instruction given in the Union as to fruit cultivation?—Yes, there is the Union horticulturist, and several assistants, but not so many as there should be.

6723. You think there is room for an extension of the existing system?—I see that in many States of America they have about four times as many Government men as we have in the whole Union.

6724. The need for that suggests itself as being important in view of the great future you see?—Yes.

6725. You lay great stress on the small holding as being the medium for the development of the fruit-growing industry in the Union?—Yes.

6726. What area have you in mind as a small holding?—It depends on the land, but from 10 to 30 acres.

6727. Land at 50*l*. would be first-class land?—Yes.

6728. That obviously calls for some substantial capital on the part of a beginner?—Yes.

6729. He requires capital, and he would require to avail himself of a system of instruction in fruit-growing, or acquire his experience by practical work?—Yes.

6730. Is there any system under which the State will advance to an intending farmer a portion of the outlay that he has to incur for the purchase of his land and the planting of it?—They have the land bank in the country, but I have had no personal experience of it. They assist with advances, but whether they advance against tree planting or not I do not know. I fancy they do as a matter of fact.

6731. I wanted to see how much the need for capital would be lightened in the case of a beginner coming here to make a start?—There is not much help at present.

6732. That suggests then that capital must be forthcoming to a substantial extent?—Yes.

6733. Now as to labour: is the effect of the assistance that you are able to give the Commission this, that you think in future white labour can be utilised to a large extent in fruit-growing?—I do think so. That is my view.

6734. No beginning has been made in that direction until recently?—No. The best coloured labour is absolutely efficient. It is not on account of inefficiency, but on account of scarcity that we complain.

6735. Now, supposing the white labour were here, and it was decided to try it on the fruit farms, would it be paid at a higher rate than the coloured, or at the same rate as efficient coloured labour?—Well, if it came in at planting time of the year it would probably be paid at the same rate, perhaps a little more, but not much. But coming in in the fruit season, it is paid more—temporary labour at a higher rate.

6736. Then the two classes of labour would find themselves in competition? The white labour would be the better paid, I gather from you?—I do not think they would be in direct competition, but the tendency would be to pay the white labour a bit more for the same work.

6737. Do you think that white labour would be as efficient as the coloured labour?—In this part of the country our coloured labour is most efficient. But I have a farm in the Free State, about 35,000 trees on it, and the Basutos I have there are most inefficient. It takes five Basutos to do the work of one coloured man here. It is not the expense, because they get only about five-pence a day. But they are dear.

6738. That would seem to point to there being a field for white labour?—There is.

6739. But in this area, where you say the coloured labour is so efficient, there would not be so much scope for white labour, I gather?—There would be some scope, but not the same.

6740. I think it is important that we should know what the scope really is?—There is not a tremendous scope at present. It is gradually increasing, but it depends, of course, on the class who come out.

6741. Can you say the extent to which the planting of new areas is going on?—I should say that South Africa is planted at the rate of half a million trees a year—that is fifty thousand acres.

6742. Can you say what proportion that bears to the existing areas under cultivation?—Government statistics on this matter are worth nothing, as they take everything into consideration, whether worth anything or not. But I should say there are in the country about two million fruit trees of some commercial value.

6743. Is the demand for labour for adults or for boys?—I should say mainly for adults. Females could be utilised.

6744. I wanted a rough idea, if you could give it to us, of the proportions of adult and boy labour that are called for?—If you bring people into the country, you want to bring the respectable family so that the children can work in the fruit season. But I am absolutely opposed to young people coming out here and working among natives and coloured people.

6745. What proportion of the labour you use yourself is adult, and what proportion is boy labour?—Of white?

6746. White first, and then coloured.—I have no white adult labour on my place except the staff. This is the first year I have used white labour, and those are boys, about 8 or 9.

6747. Now in regard to coloured?—The boys are nearly all in school. It is practically all adult labour except in the fruit season.

6748. You told us, I think, that the arrangements for distribution wanted extending. Did that remark apply to the United States and Canada or to the Mother Country as well?—I think the distribution is fairly well managed in the Mother Country. It applies to the United States, Canada, and the continent of Europe.

6749. In regard to the Consular Reports, would it be of advantage to growers to get these reports to commence by giving the areas under cultivation, and the seasonable prospects?—In their own places?

6750. Yes.—No, it would be of no advantage to us, because we come in in the off season. What we want to know is what amount of stuff from the Southern Hemisphere is coming in and whether Australian or South African.

6751. **(Sir Jan Langerman.)** You consider the market for fruit is unlimited?—I consider it so.

6752. Without affecting present prices?—I will no say that. Prices have, however, been low this year.

6753. You said you thought that very soon we should be exporting one million boxes. Do you think that will affect the prices?—The price to-day is 50 per cent. higher than ten years ago with one-tenth of the output. I believe that with more consumers the price will keep up. I do not expect the prices to go below this year's for many years.

6754. I understand you think there is some prejudice on the part of white men and women to manual work?—Yes.

6755. Is that not rather a sweeping statement?—I make it without hesitation.

6756. Do not you think the objection refers to working side by side with black people?—I am convinced it is owing to black people being in the country, and I think that employers of labour have never given white labour a show. It is not much encouragement to offer two shillings or half-a-crown a day. There has been no encouragement for white labour in this country. I am inclined to think it will come rapidly when conditions are altered for the better.

6757. What will come rapidly—the inclination to work?—I think the disinclination to work will be remedied by the prospect of better wages and conditions.

6758. So there is no inherent prejudice against work, but it is simply the question of payment?—There is an inherent prejudice.

6759. I think you will find that the prejudice is due to working alongside blacks, and that if an employer would say: in future all my employees will be white, I think you would have no difficulty in getting white people, provided you paid them adequately?—Well, sir, you might have no difficulty in inducing them to come forward, but they might not satisfy you.

6760. The efficiency would be bad, then?—The efficiency of the white labour is satisfactory in many instances, but there is a lot of white labour which is quite worthless.

6761. Would that refer to the people in the country, all of them, or only to what you call the "scum"?—It refers to both.

6762. With regard to the price of land, you mentioned 50*l.* and 75*l.* in this area?—Yes.

6763. Can you get land all over the Union for the same purpose at a much lower rate?—Yes, but there has been so little experimental work done that it is impossible to determine whether it is a safe investment in many ways In other words there is no risk attached to it in these parts, but elsewhere there is a certain risk.

6764. What are those risks?—Take up-country—the high veldt—and the Free State; the risks of hail and frost, and so on. My farm in the Free State cost about 3*l.* an acre. It is very suitable for fruit, but there are these frosts and the hail to contend with.

6765. For immigration purposes there is a lot of land to be had at a nominal figure?—I say there is a lot of land at a small figure, but not where the thing is a dead certainty.

6766. So 50*l.* or 75*l.* is the outside exaggerated figure in relation to immigration?—Yes.

6767. Would it be possible for the small holder to handle his fruit at the same cheap rate and place it on the London market as the large grower?—Possibly better.

6768. Cheaper?—Just as cheaply. Where the large grower loses is in waste. The small holder should have no waste. I reckon this year I have lost a thousand pounds in waste.

6769. How do you propose they should dispose of their fruit?—There are half a dozen agents in Cape Town. Suppose I had 100 trees in bearing. There are half a dozen here who would come out and supply boxes, material, do all the work, write the waybills, and take it all off your hands.

6770. Is there not the danger that the business would fall into the hands of the middleman to buy as he pleases?—I do not think so.

6771. As regards facilities for the purchase of land, are you aware there is a law in existence that anybody who wishes to purchase land may go to the Government, and on paying one-fifth of the purchase price, the Government will advance the other four-fifths for a period extending to twenty years?—The land bank?

6772. No, the Government?—No, I was unaware of it.

6773. That would be a great facility?—Yes, it would be of tremendous help.

6774. **(Mr. Bowring.)** I gathered from what you said in giving the price of land that there is no land in this Province left in the hands of the Government?—I do not think I said that. But I do not think the Government own any good fruit land.

6775. It has all been taken up by private parties or public companies?—Yes.

6776. But that condition does not extend to other States?—I have no knowledge of where the Government land lies in the different Provinces.

6777. But there is a great deal of good land left with the Government for them to hand over to any parties who are willing to go into the fruit farming industry, is there not?—I am not prepared to say that; I have no knowledge.

6778. **(Sir Alfred Bateman.)** You are giving your own experience only?—Yes.

6779. **(Mr. Bowring.)** I wanted to ascertain why this good fruit land was held at such high prices?—Because it is worth it. Large revenues are produced from it, and there is competition from the ostriches and lucerne. They all keep up the price of the land. Then wine farming is a very large industry also. Considerable money is made in it.

6780. Then all the good land in this vicinity at present is being worked?—I would not say that. But either being worked or held by somebody.

6781. It is not in the hands of the Government?—No.

6782. If it were in the hands of the Government at what price would they let it go?—I do not know; but I feel sure there cannot be any in the hands of the Government.

6783. Have any irrigation schemes been carried out by the Government or by the farmers in your vicinity?—Not in my immediate vicinity, but there have been in the Western Province. There are now very extensive irrigation schemes being put through by the Government, and private individuals combining together.

6784. So the fruit farmers are not troubled about the water supply?—Well, there is a great deal of available fruit land where I do not think there is sufficient water. I mean to say there is a lot more land that could be planted if there were more water.

6785. If there were more water you would be able to produce more citrus fruit?—Yes, there is no question.

6786. And there is room for a large increase in that direction?—Yes.

6787. As to the cost of the water under Government schemes, for instance, could you give us some information?—I am afraid not.

6788. Are there any Government experimental farms in operation?—Every Government Agricultural School has an orchard attached to it for experiments. There are quite a few about the Union, and some apart from Government. There is one at Ermelo and some in the Free State.

6789. You think along those lines nothing has been done?—No, but I think they have been starved. I believe one has been closed.

6790. For want of funds?—Yes. I do not think the Government sufficiently appreciate the value of these places.

6791. You consider there is a great value in experimental farms?—Yes.

6792. And more attention should be given to that sort of thing?—Yes.

6793. In regard to your distribution of fruit: has there been any co-operation among you such as there is in California?—Some ten years ago we had what was called a "Fruit Exporters' Union," and we all joined together and had the same agent in London, and we fixed the standard size of boxes and all agreed to use the same size. We standardized the deciduous fruit boxes, but some three or four years ago the Government took things into their own hands and this Union dropped to pieces.

6794. So co-operation hardly exists?—It does not exist in the export trade although it does in the dried fruit trade.

6795. You know how much co-operation has done for the business in California?—Yes.

6796. And how very successful the industry has become since co-operation was introduced, and how very badly off they were in the early days?—Yes, many of us fully realised that.

6797. I suppose you import your box material?—Yes.

6798. From where?—Sweden.

6799. Sprucé fir?—White pine, I think.

6800. I suppose you have all the appliances for attending to your trees so as to keep down pests of all kinds?—Yes, everything quite up-to-date.

6801. Fumigation is necessary, I suppose?—Yes. We have a very able Entomological Department in the Union.

6802. You are not troubled now with pests very much?—We are troubled, but we know how to deal with them.

Mr. Ralph Bulmer, Government Fruit Inspector, called and examined.

6803. **(Sir Alfred Bateman.)** Is there anything you would like to add to Mr. Pickstone's statement, Mr. Bulmer?—Yes, in connection with Mr. Pickstone's remarks just now about the inspection of the stuff and the fruit arriving on the market in bad condition. I inspect the fruit at the docks, and if I find any wrong I report to the grower. You will find in my reports, time after time, that I have written down "too green." This particularly applies to plums and peaches, and I have numbers of letters in my office where the growers have said that they were acting on the instructions received from agents on the other side. I made enquiries into this and I also carried out experiments in cold storage for the Government. Well, it turned out that you can take a peach when it is fully grown but not ripe, and you can keep it and take it out of cold storage. It can be kept for weeks. It will not rot in the same way as a ripe peach—from the outside. It rots from the centre and it lasts for weeks in a perfectly rotten condition. The agent can send it anywhere then and sell it on its outward appearance. I am certain that cannot last. You have either to cater for the consumer or the agent. If the agent cannot sell the stuff at Birmingham, say, he can try Manchester, Liverpool, and so on, whereas if the fruit is ripe it has to be sold almost immediately.

6804. Do you make any reports to Government?—Yes.

6805. Is the report published?—Yes. My last year's report is included in the Agricultural Department Report published last week.

6806. We shall have that?—I presume so. With regard to compulsory inspection; there is a tremendous lot of speculation done in the fruit at present in what I call an undesirable class of fruit. Men go round and buy up cheap fruit and ship this. I have some samples down at the store I could show you that certain men are trying to ship. For instance, some men in the early part of the season were shipping certain plums the Burbank type—which the older shippers do not approve of. They shipped 1,100 boxes and 300 big crates of about 60 lbs. each. I would not pass them. They were speculators and paid the 10*s.* extra freight charged on fruit which has not passed inspection. I saw the men after. They said they knew I would not pass their early plums, but that I would pass their pears. They told me they got 2*s.* 6*d.* a box, which allowed them a profit of 5*d.* a box after paying expenses. Now no grower can possibly grow stuff at 5*d.* And those men were contented.

6807. Then I gather you are in favour of compulsory inspection?—Yes. The quality of some of the stuff they are sending now is disgusting. Since Union the inspection has been permissive only.

6808. **(Sir Rider Haggard.)** Are you satisfied with the cold storage of fruit on shipboard?—I quite agree with Mr. Pickstone that we ought to have ventilated chambers. The chambers we use at the docks have a system of draught going through them, and the air changes every two days, whereas on board ship the air sealed up here is retained till it reaches Southampton. I agree with Mr. Pickstone as to the effect of rain on the peaches. I have made experiments myself.

6809. Do you consider the fruit-growing industry to be in a prosperous condition?—I know a certain man has started shipping from 10 acres of oranges in the Eastern Province two years ago. The trees were Washington Navels, eight years old. He has exported and made a profit of 3,000*l.*, and this year it will be 3,800*l.*

6810. There is a great opening?—Yes

Mr. Laurence Woodhead, called and examined.

(*For the evidence of this witness on "Cotton," see p.* 274.)

6810A. **(Sir Alfred Bateman.)** You have a statement to make as to citrus fruit-growing?—Yes.

The statement is as follows:—

My firm has been shipping oranges grown in the Oliphants River Valley, Clanwilliam district, for the past four or five years with varying success. I may say that the industry is quite in its infancy, and that it has been lying dormant for many years. The Oliphants River Valley, to my mind, is a very rich part indeed and can be developed enormously. The soil is of the best and it is the home of the orange tree. The farmers in the district are now waking up to the fact that there is money in oranges and are planting quantities of Washington Navels. There is a great quantity of ground in the valley unworked, only waiting the necessary energy and capital to utilise it. The growers do the packing themselves and merely utilise my firm as an agency. There has been great difficulty in getting the growers in the past to exercise the necessary thoroughness and attention to detail in the packing. At first the packing was very indifferent, but for the past two seasons this has been improved, and we now have few complaints in regard to packing, and the wastage of fruit in consequence has been brought down almost to a minimum. Oranges exported from this district are mostly seedlings and Washington Navels; the former come from old trees. The fruit is reported from London as being popular and much sought after owing to its golden colour and sweetness.

The oranges are packed in boxes measuring 26 by 12½ by 12½ inches outside measurement, and in the following counts, 96, 112, 126, 115, 176, 200, 226, 252 oranges.

The following are the costs:—

Wrapping paper, 10 by 10 inches, per box 1*d.*
Boxes, 26 by 12½ by 12½ f.o.r. Cape Town, 11*d.*
Railage from Ende Kuil Station per box, about 6*d.*
Freight and f.o.b. charges, 1*s.* 4*d.* per box.
Agency, 2½ per cent.

The price in London averaged about 18*s.* per box for the past two years though the fruit has been sold as low as 12*s.* per box and as high as 32*s.* 6*d.* per box for Washington Navels, this latter price being realised last season. I may say that in the ordinary way the grower would feel satisfied with a return of 3*s.* per hundred on the tree for his fruit. It is obvious, therefore, that the export of oranges, in addition to giving a good return, is also raising the local price of the fruit. Last season my firm shipped over 4,000 boxes from Clanwilliam district; this, of course, is a trifling quantity; this season indications point to some 10,000 boxes being shipped.

As illustrating the profitable nature of orange-growing I may mention that Mr. Roberts of Baddesford Farm, Fort Beaufort, last season exported 1,911 boxes of Washington Navels, grown on 12 acres of land, from trees 7 years old, which realised 1,164*l.* nett, that is, after paying cost of packing, railage *viâ* Cape Town, freight, agency charges, &c. In other words, after taking into account Mr. Roberts's sales locally, he obtained a nett return of 10*s.* per 100 on tree.

6811. You think there is a good prospect as regards oranges?—Yes, very good.

6812. What do you do? Do you act for the growers?—Yes. We ship to London, and get the London reports and assist them as far as possible in the packing and despatch of the fruit.

6813. You make all the arrangements with the shipping company?—Yes.

6814. Are you satisfied with these arrangements?—Yes.

6815. Where do you sell them?—The season before last we sent them to Covent Garden, and last season we sent them through a salesman.

6816. And are the oranges for London consumption?—This salesman distributes them throughout the United Kingdom.

6817. What was the amount of business you did in that way?—We exported last year about 4,000 cases, and we have orders this season for about 10,000 boxes.

6818. What would be the value of about 4,000 boxes?—2,000*l.*—10*s.* a case.

6819. Then it is quite a small industry?—Yes.

6820. **(Mr. Campbell.)** Is that the London value, or is it the value here?—That is the net return to the farmer. If I speak of the value here, I would put it at 5*s.* or 6*s.* In other words, you can go into the districts in the vicinity of Oudtshoorn and buy oranges from the trees at 2*s.* 3*d.* per 100. If the growers get 3*s.* a 100 for their fruit they are quite satisfied. I take a box of oranges as averaging 150. That is 26 inches by 12½ by 12½.

6821. What would that sell for in London?—The prices vary. From 12*s.* up to as much as 30*s.* is being obtained for seedlings.

6822. Would you say the average price would be 18*s.*?—Yes.

6823. For boxes of 150 oranges?—That was the average.

6824. That would be a very superior orange. I presume?—No, it was just the ordinary seedling.

6825. That works out at more than a penny per orange?—Yes, but it depends on the count. The counts run up to from 90 to 220 oranges. I take the average at 150.

6826. That is about a 1¼*d.* each, is it not?—Well, 1½*d.* if it is 18*s.*

6827. This is wholesale; I suppose that orange would be sold retail at 2½*d.* or 2*d.*?—I do not know. I know that the season before last Cape oranges in Regent Street were sold at Brooks's for 2*s.* 6*d.* for five.

6828. But they would not represent the average quality that comes from here?—Yes, from the Clanwilliam district.

6829. You said there is an opening here for a large trade in this description of oranges?—Yes.

6830. You think there it a constant demand for the retail orange at 6*d.* each?—I do not say at 6*d.*; this is quite exceptional.

6831. **(Mr. Lorimer.)** Have you any large fruit farms expressly devoted to fruit, or do your farmers simply grow an acre or two along with other things?—Yes, they are generally mixed farms. They have sowing lands and cattle in addition to the fruit.

6832. How is the fruit worked? By hired labour or by their own families?—By hired labour.

6833. Is it white or coloured?—Coloured.

6834. What wages do they pay?—Between 1*s.* 6*d.* and 2*s.* 6*d.* a day.

6835. In this case production will be comparatively small. Is there no co-operation among the farmers in the way of sending the produce to market, or do they simply send it through a firm like yours?—They send is to us.

6836. And you act as brokers?—Yes.

6837. You credit them with what you get from Covent Garden?—Yes.

6838. You do not buy from them outright, do you?—No.

6839. And are the results to both parties satisfactory?—Yes.

6840. And the quality of the oranges, I gather, appears to be of a kind which is much appreciated in London; is that so?—Yes, that is the report which is received.

6841. Is the amount of land which is devoted to this industry increasing?—It is now.

6842. Is this extension recent?—Yes, within the last three or four years.

6843. Does the fact that you are able to give these people good returns for their produce induce others to come into the business who have not hitherto engaged in it?—No. I would not say so. There is at present a difficulty in getting land.

6844. Does that mean that all the land that is suitable for growing this fruit in your neighbourhood has been already taken up?—Well, it is held by private people. There is little good ground available under the Crown.

6845. Where is this district that you speak of?—It would take you possibly eight hours to get there from Cape Town.

6846. Do you know any other district which is suitable for similar growth within a reasonable radius of Cape Town that is not yet utilised for that purpose?—I think there is a great deal of land about here, and more especially in the Wellington district of Swellendam.

6847. How is that land being utilised now?—Well, it is lying idle, you may say. The farmer may have a very fine orchard, but he pays very little attention to it, because there is little money in it at present on account of his not being in the export trade. He sends his fruit to market and gets very little return, and so he does not bother about it. We are trying to educate him to pay more attention to his orchard and to the export of his fruit.

6848. If you are doing so well, and if you have a practically inexhaustible market in London, why do not you encourage other farmers to go into the same line of business? There is room for extension, you say?—Yes, there is certainly room for it.

6849. And there is plenty of land in the Province which is quite suitable for the purpose?—Yes.

6850. I suppose the farmers who are not now growing fruit do get to know that it is well worth trying?—Yes.

6851. **(Mr. Campbell.)** Do you grow any oranges yourself?—No.

6852. What is the cost of shipping oranges, apart from the cost of the boxes themselves, from the grower to the market per case?—I could calculate it roughly; it would be something between 5*s.* and 6*s.*; that is including the cost of the box.

6853. In shipping the oranges, of course, London is the market principally. On receiving the fruit is it sent on through freight from here to London? Does the shipping company undertake the carriage of them through from Southampton to London?—They deliver at Southampton, I think; I am not certain.

6854. Is there any serious trouble with orange pests in this country?—There is the usual scale. And in the Clanwilliam district where they have a lot of old trees, they are very subject to it, but until recently they did not trouble to spray the trees, and as far as fumigation is concerned that was practically unknown.

6855. And cyaniding?—That was unknown also. In the case of Mr. Roberts's farm, however, they fumigate twice a season. But they do not fumigate in the Clanwilliam district.

6856. We understand, then, from your remarks that orange culture, although it is eminently adapted to South Africa, is in a backward state at the present time?—Yes.

6857. **(Mr. Sinclair.)** Your firm are the shippers for the growers. They employ you and you ship to Covent Garden, I understand?—Yes.

6858. Have you heard any complaints from the growers here about the prices which are realised in London, or have you had occasion to make complaints yourselves as to the handling of the fruit in London?—No.

6859. You have had no ground to complain, I understand?—We find that when the fruit is in good condition we get good prices.

6860. And you get the best price that you can reasonably expect?—Yes.

6861. **(Sir Rider Haggard.)** What is the value of this orange-growing land per acre or per morgen in the Oliphants River valley?—This is rather a difficult question to answer. It is in private hands. Speaking roughly, however, I should say from 5*l.* to 10*l.* per morgen.

6862. This is 2*l.* 10*s.* an acre, let us say?—Yes, it depends, of course. All the land on the farm is not of the same class. You may have 15 or 20 morgen which is good soil and favourably situated in regard to water; and then you may have a lot of land which is not so favourably placed.

6863. Can it be irrigated?—Yes, much of it can be, but there is no necessity to do so.

6864. Is there much of this land to be bought? Supposing, for instance, I wanted to start an orange farm myself, would I have any difficulty in buying say 50 acres of land for the purpose?—They are not always willing to sell the land, but farms do certainly come into the market occasionally. There was a large farm in the market recently.

6865. What did that farm fetch?—It was not sold, because it did not realise the reserve price.

6866. And you do not know, of course, what the reserve was?—This was a very large place, and they wanted something like 10,000*l.* for it, I think.

6867. Would it be suitable for oranges?—Yes, I think so, the greater portion.

6868. Then you think that unlimited land is available for this purpose?—Yes.

6869. And you also consider that there is a great market open?—Yes. The farms are very large indeed and very small portions are cultivated owing to want of capital, want of labour, and want of supervision. The farmer can only supervise a small part of his farm.

6870. How far is this from here?—If you left here at 8 o'clock, you would arrive at Eindekuil at 5 o'clock. And the farms are right down the valley. I have seen 5,000 oranges taken off one tree alone.

6871. What do you think it costs per acre to start a citrus farm?—I am not in a position to say.

6872. **(Sir Jan Langerman.)** What would be the lowest price that would pay a farmer to sell oranges in a London market. Would it be 1*d.* or 2*d.* an orange, or what?—I can buy thousands of oranges for delivery at about the end of May at 2*s.* 3*d.* a hundred on the farm.

6873. Would that pay the farmer well?—Well, he is quite satisfied with that price, and if you take the average of a box of oranges as 3*s.* 6*d.* for 150 you can put the cost of export at 6*s.*, so that would be 9*s.* 6*d.* altogether.

6874. What would it realise in London?—As I said before, we have realised as much as 18*s.* a case, and this is not an outside figure.

6875. But what is the average price?—Well, some boxes would be as low as 12*s.*

6876. Would it not pay the farmer better to ship to England without the assistance of an intermediary? Would he not thereby obtain a better return for his fruit?—Well, naturally we do not encourage it ourselves. He would not obtain a better return.

6877. Well, speaking now about orange-growing, it is possible to grow marketable oranges all through the Union, is it not?—Yes.

6878. In the Transvaal?—Yes, in certain parts of the Transvaal it is.

6879. And Natal produces large quantities of oranges?—Yes.

6880. Cape Colony and the Free State and the Basutoland border?—Yes.

6881. But, practically speaking, the land which is suitable for oranges all over the Union is unlimited?—Yes. Well, there is a very great quantity of it which wants both capital and labour.

6882. **(Mr. Bowring.)** What variety of oranges are those you refer to as being worth 2*s.* 3*d.*?—These are ordinary Cape seedlings.

6883. But they are merchantable and readily sold in the London market?—Yes.

6884. And the better varieties fetch even higher prices?—Washington navels.

6885. What would they fetch?—They always fetch more than seedlings, but the price fluctuates.

6886. If you pay 2*s.* 3*d.* for the ordinary kinds of oranges what would you pay for Washingtons?—About double.

6887. I presume the farmers are going in more and more for the better varieties. Are they not?—Yes.

6888. And I presume that in planting further areas farmers are planting nothing but the finer varieties?—Yes.

6889. The old seedling would not be considered at all?—No.

Cape Town, Tuesday, 3rd March 1914

Mr. JOHN WILLIAM JAGGER, M.L.A., Wholesale Merchant and President of the Cape Town Chamber of Commerce, called and examined.

(*For evidence of this witness on "Land Settlement and Irrigation," on "Steamship, Posts, and Telegraphs," on "Railways," and on "Empire Development," see pp.* 6, 60, 102, *and* 160; *and on "Exhibitions," "Statistics," "General Trade Questions," and "Legislation," see pages* 124, 127, 145, *and* 181 *of* [*Cd.* 7707].)

6890. **(Sir Alfred Bateman.)** Are you in favour of the extension of the principle of inspection of produce?—Not at present. I am not in the trade, but I know one or two large growers. Take, for instance, Mr. Merriman. He is very much opposed to it. He has told me of cases being rejected by the inspector and sent home and then realising very good prices.

6891. Of course, you are aware that in some instances, South African fruit has got a bad name at at Home because it varies so much in condition?—Yes.

6892. It is everything to get a good name for fruit of uniform quality?—Yes. But there is a man here at present from Yorkshire and he is shipping inferior stuff. He says—I am not catering for the West End trade; I am catering for the million, and instead of serving a limited number, I am going to serve the masses of the North, as well as America.

6893. Do you think that is to the advantage of the industry here as a whole?—It provides a market for the inferior fruit. At present that stuff can only be sold to the jam factories. If you had inspection, that stuff would not go. Now this man comes along and puts his money into the concern. He has bought that stuff and he says—I know it is not high-grade fruit, but it will suit the ordinary working-class consumer. It is more by way of an experiment, of course. I should rather like to see how it will work before any steps are taken by the Government in the matter of inspection. It has enormously increased the shipments Home.

6894. **(Mr. Tatlow.)** If grading were made compulsory, I suppose there would be several standards of grading; it would not be all of one high quality for the West End shops?—I should not think so.

6895. If that were the case, then, would it not be well to have a sufficiently low grade for the ordinary shops in ordinary towns and would it not be better on the whole for the reputation of the industry to have compulsory inspection?—It would depend on whether they adopted a low grade. And as we are informed, I do not think they would. They simply want to allow the best stuff only to go Home, and there is no doubt that the growers who go in for the high-class stuff are very keen on this grading, they want to restrict the shipments to this particular class, which would pay very well from their point of view.

6896. Would the Government consider that class of man alone. Would it not consider the benefit of the general grower?—In a country like this, when you appoint an official you have to leave a good bit to him.

6897. **(Sir Alfred Bateman.)** Is it not more a question of the time of picking, the packing and the moisture, and so on, than any particular grade of fruit?—Yes, but they send a lot of low-grade fruit.

Cape Town, 4 and 5 *March*. *Bloemfontein*, 20 *March* 1914.] The Hon. Sir THOMAS WILLIAM SMARTT, K.C.M.G., M.L.A., Mr. F. B. SMITH, Mr. A. E. FICHARDT. [*Natural Resources: Fruit.*

Cape Town, Wednesday, 4th March 1914.

The Hon. Sir THOMAS WILLIAM SMARTT, K.C.M.G., M.L.A., called and examined.

(*For the evidence of this witness on "Land Settlement and Irrigation," "Steamship, Post, and Telegraph Communications," and "Bunker Coal," see pages* 8, 64, *and* 103.)

(Witness.) May I say, in regard to the inspection of fruit, with which I believe the Commission is dealing, that I am one of those who hold the view most strongly that anything that the State can do in the matter of inspection and guaranteeing good quality to the buyer is of great advantage to the country. There is nothing to prevent fruit that does not pass Government inspection being sent to England. But I do think it would be of great benefit to develop the fruit industry of this country, and it would be a pity not to have a Government guarantee of articles of a certain quality. I am in favour of grading of fruit, mealies, and everything like that.

Cape Town, Thursday, 5th March 1914.

Mr. FRANK BRAYBROOKE SMITH, Secretary of the Department of Agriculture for the Union of South Africa, called and examined.

(*For the evidence of this witness on "Land Settlement," "Animal and Agricultural Produce," and "Cotton," see pages* 9, 176, *and* 274.)

6898. **(Chairman.)** What do you say regarding the development of the fruit industry?—Do you mean citrus or deciduous.

6899. I mean both?—As regards citrus fruit, it is undoubtedly a real South African fruit. Wherever you can get sufficient warmth you can cultivate it well.

6900. What does that include?—Oranges, naartjes, and lemons, and in certain places such as the Western Province and some parts of the high veldt deciduous fruit are doing very well. Apples on the high veldt and pears and peaches and plums in the Western Province, but I do not think it will extend over the country to the same extent as citrus fruit.

6901. Is the cultivation of citrus fruit profitable?—Yes.

6902. **(Mr. Campbell.)** The Government grade fruit and give preference of 10*s.* a ton for fruit which has passed the Government inspection by the Government grading expert?—Yes, that is the system.

6903. Does that result in the greater part of the fruit which is exported being graded or is the greater part sent away ungraded?—By far the greater portion is graded. Last year one or two growers did not grade, and this year one or two speculators have sprung up who have bought cheap fruit and shipped it to London with a view to getting the Saturday night trade. They are of opinion that there is a market for cheap fruit in London among the lower classes but at a very different price, of course, to that at which the best fruit is sold in Bond Street.

6904. Would you say that the greater part of the fruit shipped from South Africa is satisfactorily graded?—Yes.

6905. There is no serious complaint?—No.

6906. **(Mr. Tatlow.)** With regard to the grading of fruit, you say the greater part is graded already?—Yes, by far the larger.

6907. That being the case, do you not think it desirable that grading should be made compulsory?—Yes, I do.

6908. So as to prevent the careless man sending out inferior goods?—Yes.

6909. And in the present grading system I suppose there are various classes of fruit?—Yes.

6910. How many grades?—I think there are three grades.

6911. You strongly favour compulsory grading?—Yes.

ORANGE FREE STATE.

Bloemfontein, Friday, 20th March 1914.

Mr. ARTHUR EMMANUEL FICHARDT, President of the Bloemfontein Chamber of Commerce, called and examined.

(*For the evidence of this witness on "Forests," see page* 290.)

6912. **(Sir Jan Langerman.)** What have you to tell us about the fruit prospects in this district?—We ought to be able not only to satisfy our own requirements but also to export.

6912A. Where would you export to?—I do not mean fresh fruit but dried fruit, and if we could induce manufacturers from oversea to open factories here there is no doubt we could export much more.

6913. Could you compete against the coast?—They would export fresh fruit.

6914. And also dried fruit?—Consider the amount of jams that we could export, the amount of fruit that is simply thrown away is enormous.

6915. But are the conditions in the Free State and also in the Transvaal in favour of growing fruit on a large scale. Is it not a fact that you get hail and late frosts in this part of the country?—Of course, the late frost is a danger and hail storms we get occasionally, but we do not have hail storms which are general all over the country, as they, as a rule, are only local.

6916. The late frost would be your greatest enemy?—Yes, but that has been overcome in America by using oil stoves. I have saved a crop of fruit in the old days by having mist fires.

6917. Do you think it would pay to go to that expense?—Well, I read recently that an American farmer had 20,000 oil burners on his farm which were lit by electricity when the temperature fell to a certain point. If it pays them it should pay us.

6918. In regard to the cost of production, would not transport amount to a large item?—There is no doubt that transport is a considerable item, but the imports of motor cars last year were 500,000*l.* and this year over 1,000,000*l.*, and farmers are beginning to use motor cars more and as they do this there is no doubt that the roads will be improved and the farmer will be able to get into town in an hour or so, whereas before it used to take him a whole day, and he will be able to bring his produce in to market or factories, if established, for turning the fruit into jam.

TRANSVAAL.

Pretoria, Monday, 30th March 1914.

Mr. Edmund Francis Bourke, President of the Pretoria Chamber of Commerce, called and examined

(*For the evidence of this witness on "Animal and Agricultural Produce," see p.* 246; *and on "Mining," see p.* 33, *of* [*Cd.* 7707].)

6919 **(Chairman.)** What can you tell us as to the citrus industry?—We can only give the figures in regard to citrus fruit up to 1911. The citrus trees under cultivation were 289,844, but the increase since then has been very great. We have no figures for the past year.

6920. **(Sir Rider Haggard.)** On what area of land are these citrus trees?—I am sorry I cannot give that.

6921. Within what radius?—In the Pretoria and Rustenburg Districts.

6922. Rustenburg is a big place?—Yes, but the district abuts on Pretoria and the trade must automatically come through Pretoria. The development of the citrus fruit industry is growing steadily. The export of oranges to Europe has only just commenced, the trees are just now reaching the bearing stage, and we have immense plantations. Mr. Rissik has a plantation of something like 5,000 trees, Mr. Hollard—just at the back of the Berg—has 5,000, and one grower nearer to Rustenburg has 10,000. Those are one or two producers whose trees will shortly be in bearing and the fruit will shortly be ready for shipment to the European market.

6923. In my days you got frosts, do you still get them?—Yes.

6924. Will the citrus trees stand the frosts?—If care is taken, but in the area that is being most extensively cultivated for the citrus fruit there are comparatively very few frosts, and even where there are frosts we will have to rise to the occasion like they do in Florida, for instance, where they have severe frosts.

6925. You believe your climate is as good as that of Florida?—I think so.

6926. And you can grow very good oranges?—Those we have sent to Europe have been pronounced as second to none.

6927. **(Mr. Bowring.)** At what altitude are your citrus farms in this district?—I think about 4,000 feet in the immediate vicinity of Pretoria. But there are a good many large sheltered positions behind the hills—these ranges of hills that run parallel to the high veldt.

6928. At this altitude have you any considerable frosts in the winter?—Yes, at times, but the frosts are not so severe as to affect the citrus trees, behind the hills especially. There are areas where the frosts are never so severe as in Florida, for example.

6929. In Florida, of course, you may have an occasional frost which is severe, but they are not of frequent occurrence. During your winter, are they not more frequent?—Here they are, but not in the hinterland—not in our immediate vicinity.

6930. Not at an altitude of 4,000 feet?—No. Then there are very large areas growing down in the eastern portion of the Transvaal—the Elands River Valley, an increasing area—and there they have no frosts at all.

6931. What varieties of orange do you grow?—I think one of the principal varieties is Washington Navel—the seedless variety. But others too are grown, such as the Villa Franca and Cecilian Lemon.

6932. All under irrigation?—No, not all; some on dry land.

6933. Even the Washington Navel?—I believe so.

6934. Care is taken against frost, you say. Do you know what process they adopt?—To tell you the truth, I do not think we have suffered so severely. We have suffered, no doubt, here and there, but in most of these areas where the trees are planted, frost is a negligible quantity.

6535. They do not adopt any system of smudging?—No, it is not necessary. We have suffered occasionally. We planted a large area ourselves, for instance, where the frost was severe and we had to pay for our experience, but we did not do it again.

Mr. Izaak Jacob Haarhoff, J.P., called and examined.

(*For the evidence of this witness on "Land Settlement," "Animal and Agricultural Produce," and "Forests," see pp.* 45, 249 *and* 301; *and on "Mining," see p.* 33, *of* [*Cd.* 7707].)

6936. **(Chairman.)** Have you any evidence to give us as to fruit-growing?—I should like to say, first of all, that though a lot has been said about citrus fruit, I am afraid you have not got a thorough idea of what is possible in that direction.

6937. A deputation of the Commission is going out to see the citrus farms?—Well, I should like to give you approximately the area. You can take the Marico district in the Western Transvaal, Rustenburg, Pretoria, Middelburg, Lydenburg, Barberton, and Ermelo. You can reckon the citrus part of the country is roughly 300 miles long by 20 broad. Then we have to the north the Waterburg and Zoutpansburg districts. I was yesterday out in the country, and I saw a citrus farm where I never expected it in the Middelburg district and the farmer told me this, that they have the advantage in that district that the fruit is 20 or 30 days earlier than in the Rustenburg district. Then another thing of which we have a big area in this country is land suitable for apples. You can grow them pretty well anywhere. You can get apples in the Pietersburg district as nice as anywhere on the high veldt or Pretoria, and you can grow almost any variety, and you can buy soil suitable for that kind of produce to-day at an average of about 20*s.* an acre. Apples never have an average value in this country of less than 2*d.* a piece all the year round.

6938. **(Sir Rider Haggard.)** What is citrus fruit soil worth now?—There are any amount of farms which you can buy at 5*l.* an acre under irrigation. The Transvaal has such a variety of climate that you can have your crops spread out in a way which is not possible in many other parts of South Africa. The first peaches we grow are in the market as early as November, and even to-day, at the end of March, you can buy peaches in Pretoria.

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Natural Resources.

(e) Fruit.

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APPENDIX I.

Extract from Statement handed in by the Transvaal Agricultural Union.

(For evidence of the representatives of the Transvaal Agricultural Union on "Animal and Agricultural Produce," see p. 254, and for extracts from their statement, relating to "Irrigation" and "Cotton," see pp. 52 and 286.)

Fruit.

Many varieties of fruit are produced in various parts of the country, and there is no district where saleable produce of this character cannot be raised. Prices would be satisfactory if conditions prevailed such as are found in most other countries. In respect of citrus fruits, great progress has been made in the past decade, under the present head of the Transvaal Horticultural Department and his able staff. An export trade, which promises to become a valuable one, has been gradually growing up, and some of the fruit thus exported has realised very satisfactory prices on the London market. Peaches, apricots, nectarines, plums, pears, apples, &c., are readily produced in the high-lying districts, and one instance is recorded in which the price obtained for the produce of an acre of apple trees amounted to a sum of 40*l*. It is perhaps useless for the Transvaal to hope to compete successfully with the Cape in respect of the growing of grapes, or in the production of wines, but the industry is nevertheless a paying one, when conducted under favourable conditions of proximity to markets, &c.

In the Lowveld districts semi-tropical fruits are grown, and these find a ready sale on the Johannesburg and Pretoria markets. Here, however, the Transvaal grower is placed at considerable disadvantage as against the grower in Natal, where the labour of imported Indians can be cheaply obtained.

In De Kaap Valley the climate and soil are admirably suited for the growing of fruit of all kinds, and the quality of the fruit compares very favourably with that which is produced in other parts of the Union. The prices obtained are mainly those which rule the Johannesburg market, to which place the bulk of the fruit is sent, only very small quantities being locally consumed. Small consignments have been exported to Europe, and in some cases they have realised fairly satisfactory prices.

Export to Europe.

It is held that the growing of citrus fruits, and such other varieties as mangoes, avocado pears, bananas, &c., for export to Europe will materially aid in building up an export trade which will be of great value to the district above referred to. As a result of this hope many farmers are busily engaged in planting varieties of fruits which will satisfactorily bear the journey to Europe. There is a great need for the assistance of Government experts, not only as to the methods to be adopted in growing, but to teach the growers how to combat the many diseases to which such fruits are liable. The fruit is of the finest quality wherever the trees are clean and healthy. An expert resident in the district would be of inestimable value to the growers of the areas concerned. Another serious question is that of the cost of boxes for export. I am assured that by the time a box costing 3*d*. at the coast has reached Barberton its value has increased to 7*d*. If this be so, it will be readily seen how such a policy must injure the prospects of industrious growers. Tomatoes are largely grown in many parts of the Transvaal, and there are growers who send no less than 100 tons to the Johannesburg market in a single season. Competition, however, is very keen, and one grower states that his average profit on a box of 40 lbs. weight has been only 1*s*. during the past season. Out of such prices he has to pay the costs of cultivation, fertilisers, boxes, paper, packing, and transport to a station 15 miles distant from his farm. No wonder that he remarks, "This is not a very highly fattening process."

Railway Rates.

We have a statement from a grower of grapes, in which he says that for eight boxes of grapes, weighing 200 lbs., he secured on the Johannesburg market the sum of 11*s*. 6*d*. His charges were: railage, 5*s*. 10*d*.; boxes, 3*s*. 8*d*.; commission, 1*s*.; leaving him a surplus of 1*s*. on his consignment. It will be noticed that the railway took some 52 per cent. of the gross value of the consignment for freightage. No wonder that the the writer remarks that "this is encouraging business with a vengeance."

It is absolutely necessary that, in connection with the export of fruit to the London market, some arrangement should be made whereby the fruit is disposed of through reliable agents, as we are informed by eye-witnesses that much of it is sacrificed at ridiculous prices simply for lack of proper handling before and at the time of sale.

Provision should also be made whereby any statement made on invoice, advertisement or circular, relating to the quality of seeds or manures, should be an absolute guarantee as between buyer and seller as to the facts stated.

We are also informed that the damage which is sustained by careless packing and handling of perishables in the process of transport by rail is a cause of very serious loss to growers. To claim for losses thus sustained usually amounts to the receipt of a letter from the department concerned, in which it is stated that "ordinary care was taken in the conveyance of "the consignment, and your claim cannot, therefore, "be recognised."

APPENDIX II.

Extract from Statement of the South African National Union, handed in at Johannesburg.

(For portion of this Statement relating to "Animal and Agricultural Produce," General, see p. 269.)

Fruit-growing.—Although fruit has been grown in South Africa for a considerable time, it is only in the last fifteen years or so that the possibilities of building up an export business has been fully realised. A regular export trade in grapes, peaches, pears, plums, apricots, nectarines, oranges, and naartjes has now become an accomplished fact, and growers have realised that the prices to be obtained well repay the care involved in systematic and intelligent gathering, and packing for both the oversea and local markets.

Deciduous fruits grow well in many parts of the Union. The varieties best suited to the different

districts are now known, and with ordinary care and judgment, excellent crops can be assured in those parts which have been recognised as suitable. Up to the present the best quality of fruit has been sent oversea. There is a very large local demand which is satisfied, as a rule, by a second, although not an indifferent, quality.

Although considerable quantities of deciduous fruits are grown every year, the industry is still in its infancy, for the production of *dried* fruits, including prunes and raisins, has not received the attention it merits. Consignments sent to London have been pronounced of excellent quality, but no regular export trade has yet been established in these lines, nor has the local demand been overtaken. Nearly 4½ million pounds of dried and canned fruit were imported into South Africa during 1913.

The world's demand for good fruit is increasing every year. South Africa should be able to supply a large portion of the European demand for fresh and dried fruit, as well as the local demand, which will steadily increase as the interior is opened up. In Northern Rhodesia, the Congo, and Central Africa there will always be a big market for South African dried fruit. As the most up-to-date methods of canning and packing are more widely adopted the internal demand for preserved fruits will largely increase.

In citrus-growing also South Africa possesses an asset the real value of which is not yet grasped. Many districts have been proved to be eminently suitable for the production of citrus fruits. A trade has been opened up and the possibilities of the oversea market tested. South African oranges have obtained a place on the markets of Europe from which, owing to their excellent flavour and especially the time of the year at which the fruit arrives, they are not likely to be displaced. Moreover, citrus fruit produced in the dry atmosphere of the Transvaal carries well over the 7,000 miles that separate the grower from the oversea consumer.

The profits to be derived from orange-growing are very considerable. Mr. Davis, the Government horticulturist, recently instanced cases in which 35*s.* was being made annually from orange trees and 60*s.* from naartje trees five years old. The Washington Navel orange is the variety most in favour.

Citrus land is rapidly rising in value all over South Africa, but it is still to be had at low prices compared with those prevailing in California and Florida. As irrigation schemes are carried out more extensively, additional areas will become available. There is no pleasanter or more profitable proposition than citrus-growing, nor one more suited to the small farmer or the large company who have other sources of revenue while the trees are coming into bearing. In the Transvaal citrus growing and tobacco are often carried on together, the same climatic conditions being favourable to both. Tobacco is a profitable crop at present, but it is expected that the supply will soon overtake the local demand, when oversea markets will have to be sought. But there will always be a considerable market in South Africa for the best qualities of leaf.

Owing to the wide variety of climate in South Africa almost any kind of fruit can be grown. From bananas, pine-apples, mangoes, and citrus fruits in the semi-tropical areas to apples on the high veld of the Free State or Transvaal, there is a very wide range of choice. The low veld of the Transvaal with its extraordinary fertility and depth of soil has marvellous possibilities in fruit production exceeded in no other part of the world.

In the apple-growing sections of Canada and the United States a lucrative proposition is found in the purchasing of large tracts of land and their subdivision into smaller plots suitable for orchards. These are planted and cared for by the vendors until such time as the trees come into bearing. The purchase is usually arranged on the instalment system, so that the proprietor of a 20-acre plot, on assuming charge of it when the bearing period arrives, is in a position not only to discharge the remainder of his liabilities within four or five years, but also to live in comfort during that period from the produce of his trees.

In British Columbia such ready-made orchards have realised from 80*l.* to 250*l.* per acre. In South Africa it would be possible to offer such propositions to would-be settlers at from 20*l.* to 50*l.* per acre.

In the Western Province of the Cape there has been a great appreciation of the value of land for the production of deciduous fruit, but ground can still be obtained on reasonable terms.

An enormous impetus would be given to the fruit industry in South Africa if a large acreage, in small farms, was available for purchase on extended terms of payment, such as those under which Crown lands are offered, *i.e.*, five years' lease at a nominal rate, with the option of subsequent purchase in annual instalments. These terms would attract large numbers of people with limited capital, which under such an arrangement could be devoted entirely to development. The present system of land sales is largely prohibitive, for a buyer is compelled not only to pay down more money than he can afford, but also to take hundreds of acres he does not require. If land was offered in holdings of a reasonable size much higher prices than at present obtain could be profitably paid.

Strange to say, the possibilities of profit in buying the best agricultural land and cutting it up as suggested have never been fully realised in South Africa. It is considered that in this direction there is a very large opening for the employment of British capital.

APPENDIX III.

MEMORANDUM by Mr. W. B. BRIGHT, Joint Manager for the Rustenburg Citrus Growers, Limited, on the TRANSVAAL CITRUS INDUSTRY.

In the Transvaal oranges have been grown in all districts in the latitude of Pretoria and northwards.

The most notable has been the Rustenburg district, but the planting of orchards is going on rapidly in all suitable districts adjacent to the railway. We may say that every extension of line in the northern half of the Transvaal opens up more citrus land.

Confining our remarks to the Rustenburg district, the citrus belt is a strip of ground 4,000 to 4,500 feet above sea level, lying on the north side of Magaliesburg range, which protects it from the cold south winds in the winter.

The soil is sandy loam, often 20 feet deep, formed by the denudation of the quartzite hills.

The controlling factor in the size of the orchards is the amount of irrigating water available. All the smaller streams are fully used at present, but in future further land may be brought under irrigation by erecting storage works on the larger rivers.

There will remain large tracts of ground for which no water is available.

The climate is excellent for the cultivation of citrus fruits, the rains coming in the summer (average rainfall about 25 inches), while the harvest season, the winter months, June, July, and August, are dry.

A few degrees of frost only are experienced on the lower lying portions of the groves, and the continuous line of hills gives protection from cold south winds.

When the voortrekkers first settled in the district they planted seedling orange trees, and these are now grown to great size, often 60 feet in height, and bear enormous crops of excellent fruit.

This is the fruit that has been exported during the last few years. Many different types of oranges are produced by these trees, and owing to the size of the trees the method of hand-picking cannot be carried out. In order to pack the fruit for export a co-operative society was formed in Rustenburg, to which town

the farmers cart their fruit in springless ox-wagons, and it is there graded, packed, and despatched to Europe *viâ* Cape Town.

Considering the rough handling the fruit must undergo it is surprising the wastage has been so small. The dry climate produces good keeping qualities. This fruit has realised from 12*s.* to 1*l.* per case at Covent Garden.

Since the war a great amount of planting has taken place, the majority of the trees put out being the "Washington navel," which in California has proved itself to be the best selling orange grown.

These newer orchards are only just beginning to produce fruit, and the Johannesburg market has readily taken all the navel oranges sent to it.

Small experimental shipments have been made to London with excellent results, 15*s.* to 25*s.* per case being obtained.

The quantity of fruit exported will advance rapidly, as many thousands of young trees will each year now augment the producing orchards. This class of fruit will be hand-picked and packed in the orchards.

Our picking season begins in June and continues to August with Navels, while Valentia Lates carry it on into December.

Since the war considerable numbers of lemons of the "Villa Franca," "Genoa," and "Lisbon" types have been planted and thrive splendidly, young trees often bearing a considerable crop in the third season. These are all sold in the uncured state on the local markets, realising from 5*s.* to 8*s.* per case of 100 fruits. This price is obtained in competition with the considerable quantity of lemons still imported from the Mediterranean.

No systematic "curing" of lemons has yet been attempted. In considering the possibilities of exporting lemons we must bear in mind that the lemon crop is being gathered all the year round, and therefore we should always have the Mediterranean fruit competing with us.

With oranges our harvest comes just at that time when all other orange-exporting countries have finished theirs.

Cost of Land.

Irrigated, unplanted citrus land in this district now sells at from 25*l.* to 50*l.* per acre, and very little is available even at that price.

Little accurate information is yet available as to the cost of cultivating commercial orchards, an important factor of which is the amount of fertilisation that is done.

Our labour is of the poorest description. All heavy manual labour is done by Kaffirs, who come from their kraals to work for periods of a few months and then go back again. The only way to induce them to remain for longer periods is to give them portions of land for their own use.

In large orchards the workers are continually changing.

There are large numbers of very poor whites in the district, and it is to be hoped that the women and girls will take up the wrapping and packing of fruit. Their lives are now spent in idleness, so that a settled industrious character can only be gradually evolved.

Kaffirs are being paid 2*l.* per month and their food, the latter costing from 10*s.* to 12*s.* per month. The natives are only engaged on monthly contracts.

White farm hands are paid from 5*l.* to 6*l.* per month, without food, but more often share in the crop.

As the neighbourhood is a deadly one for horses most of the ploughing is done with oxen. These are most unsuitable for orchard work, and all farmers are looking forward to the time when the scourge of horse-sickness is overcome.

The development of light agricultural motor tractors may overcome the difficulty.

In regard to transport, all the orchards suffer because of the great distance the railway has been built from the citrus lands.

The orange groves nestle closely against the hills, but the railway was laid out in the plain, 5 to 10 miles from the hills, and passes through uncultivated clay ground.

The fruit for export is carried to Cape Town at a rate of 15*s.* per ton. It is there inspected by a Government inspector, the charge being 1*s.* 6*d.* per ton.

The dock charges are 2*s.* per ton, and sea freight to London 25*s.* per ton.

The experience gained by the co-operative society shows that after the fruit reaches the packing shed it can be graded, boxed, and transported, and sold on the London market at an inclusive cost of 5*s.* 6*d.* per standard box (averaging 176 fruits).

Of this charge the wrapping and boxing costs 1*s.* 9*d.*, and the balance of 3*s.* 9*d.* is absorbed by the freight, dock charges, commission, &c.

The wood used for the boxes is imported, as no suitable timber is grown in the country.

The duty and railage on this material makes a standard box cost 1*s.* 3*d.* at Rustenburg.

W. B. BRIGHT,
Joint Manager for the
Rustenburg Citrus Growers, Limited.

(f) Fisheries.

NATAL.

Durban, Wednesday, 25th March 1914.

Mr. JACOB J. EGELAND, Managing Director of the Union Whaling Company, and Mr. F. BEARPARK, called and examined.

6939. **(Sir Alfred Bateman.)** Whom do you represent, Mr. Egeland?—**(Mr. Egeland.)** I am managing director of the Union Whaling Company.

The following statement was submitted by Mr. Egeland:—

THE WHALING INDUSTRY.

Industry started at Durban.—Durban is the cradle of the whaling industry in South Africa (according to Norwegian methods).

First Campaign Site.—In 1908 the first South African whaling station was built at the Bluff side of the entrance to Durban. The following year it was removed to the ocean side of the Bluff.

Present Companies in Natal.—To-day we have six whaling stations in Natal, five at the Bluff, and one at Park Rynie.

South African Whaling Company, Ltd.,	started	1908
Union Whaling and Fish Company	,,	1910
Premier Whaling Company	,,	1912
Shepstone ,,	,,	1912
Consolidated ,,	,,	1913
Park Rynie ,,	,,	1911

Capital expenditure over quarter million sterling.

Dividends.—Only two of these companies have paid any dividends.

Number of Whalers.—Altogether about 25 whaling steamers are employed in Natal. Average cost about 5,000*l.* Six were built in England, the rest in Norway.

Where Boilers purchased.—Most of the blubber and press boilers were constructed in Natal.

Equipments from Norway.—Harpoons and whalelines are imported from Norway; also most of the powder.

High Customs Duty on Gear.—Being for industrial purposes the Customs duty (15 per cent.—gunpowder, 6*d.* per lb.) seems unreasonably high.

Railway rate on Carcasses.—The South African railways charge 4*l.* per whale for carting the carcasses to the Bluff station. Also unreasonably high.

Licences, &c.—Moreover, each company pays annually to the Provincial Government 50*l.*, and 5*l.* for each whaler.

Revenue.—Further, the Union derives revenue from leases of land, craft licences and dock fees, trading licences, &c. (Company licence, 1*l.* per thousand capital).

Industry heavily taxed.—No other industry contributes so much to the revenue of this country—in proportion to its extent.

Water.—The Durban Corporation also derive large amounts annually from the whaling stations for supply of water.

Expensive.—Whaling in Durban is very expensive.

High cost of Shipping.—The cost of shipping oil to Europe (including packing) is about 5*l.* per ton.

Cost of Living.—The high cost of living in Natal also mitigates against the success of the local industry.

Freight.—Last year the shipping companies raised the freight of oil to 1*l.* 4*s.* 9*d.* per ton. In their own interest they ought to go back to the previous rate of 20*s.* per ton freight.

Harpoons and whalelines, also gunpowder, should, in my opinion, be free of duty, and the railage on whale carcasses reduced to 2*l.* per whale.

There are two families of whales:—

(1) *Odontoceti*, with teeth. Sperm, bottlenose (dolphins and porpoises).

(2) *Mystacoceti* (Baleen whales):
The Arctic Right whales.
Southern Right ,, (*C. Australis.*)
Blue ,,
Humpbacked ,, (*Magoptera boap.*)
Fin ,,
Common Rorquals (Herring whale).

With the exception of the Arctic Right whale, all the other species obtain in these waters.

Sperm.—The Sperm whales are here throughout the year, though seldom seen within 50 miles of the coast; running mostly in schools, too, and rarely staying more than a day or two in the same vicinity. The Sperm whales are difficult to find, but when found there are generally thousands in the school. Most of them are small, and as the price of sperm oil has dropped about 50 per cent. within the last three years, Sperm whaling from a shore station is hardly in itself a paying proposition.

Some 250 Sperm whales were captured here last year.

Season.—The Baleen whales (or whalebone whales begin to arrive in the month of May, migrating northwards. In August–September they begin to return southward. After the end of November and until April–May hardly one Baleen whale has been seen off the Natal coast.

Antarctic Season.—At this time, November–April, thousands are killed annually at the Falkland Islands (British).

Whaling deplorably overdone.—At whaling fields, like those of South Georgia and South Shetland, where whales remain stationary several months, there is room for more companies than at places like the South African coast where the whales do *not* stop, but merely *migrate* all the time.

Very rarely are many Baleen whales seen off the Natal coast in any one day.

It is, therefore, deplorable that more than one—or at most two—stations should have been allowed in any one port.

At Durban, for instance, there is not room for more than two companies.

Life of Industry.—If the industry had been limited to, say, six companies on the East Coast of Africa and a similar number on the West Coast, each company might have done well, and the life of the industry been prolonged indefinitely.

Number of Companies.—Upwards of 30 whaling companies operated in Africa last year.

1913 *Catches.*—In 1913, the six Natal companies, with 25 whalers, captured 1,247 whales, averaging about 50 whales per boat.

In 1911, the then existing two Durban companies, with seven whalers, captured about 1,000, average about 140 per boat.

Humpbacks.—Last year, about 650 Humpbacked whales were captured, as against about 950 in 1911.

Fin and Blue Whales.—About 250 Fin whales and 50 Blue whales were captured in 1913.

Output.—The following products were obtained in 1913:—

About 7,985 tons oil.
,, 3,888 ,, fertilizers.
,, 53 ,, finners.
,, 14 cwt. whalebone. (*e. Australis.*)

Value.—I estimate the local value of last year products at about 140,000*l.*

Over 5,000 whales have been landed at Durban altogether.

Protection of Industry.—In my opinion it is now too late for the Union Government to do anything for the protection of the industry (except by reducing railage, duty, and licences).

Already too many companies have been allowed. No more are likely to come here.

Japanese Ordinance.—But in any new fields the authorities would be well advised in confining the industry within reasonable limits, in order to preserve it—on lines similar to the Japanese Ordinance on whaling.

Extinction of Whales.—A movement has been on foot in France and also in America for the preservation of whales, and fears have been expressed that the whales or some of the species may become extinct. Consequently, an international agreement to stop the killing of whales has been suggested. In my opinion, such a step is as unnecessary as it would be impracticable

Whales cannot be exterminated.—It is impossible to exterminate the whales. There are probably more whales in the sea to-day than ever before. The thing will regulate itself. When in a whaling field the number of whales decrease so that the industry is no longer payable, whaling there will necessarily cease in that particular field.

Millions of Whales.—There are, and will always be, millions of whales in the seas.

But to preserve the industry, Governments might, jointly or separately, insist that—

(1) No whales under a certain size shall be killed—say 25 feet for Baleen whales;

(2) That the whole whale carcase shall be used up—not only the blubber, but also the flesh and bones.

Market.—Most of the whale oil and nearly all the sperm oil has been exported to Europe. The bulk has gone to Glasgow, some to the Continent, and a little to Australia.

The local demand for whale oil is increasing. About one-half of last year's Natal production was disposed of for home consumption.

Most of the fertilizers have been consumed in South Africa. Some have been exported to Mauritius.

Whalebone, whale finners, and sperm tusks find no market in this country. France has taken the bulk of the whalebone and finners.

6940. **(Sir Alfred Bateman.)** Whom do you represent, Mr. Bearpark?—**(Mr. Bearpark.)** I represent myself, as one who is very keenly interested in the whaling industry. I am manager of a whaling company at the present time.

The witness submitted the following statement :—

THE WHALING INDUSTRY.

I SPEAK of this as a world-wide industry.

With the object of drawing attention of the Commission to the conservation of the natural resource on which this industry depends for the supply of its "raw material"; and to the probable advisability of so controlling the industry by regulations whereby the maximum benefit shall be obtained from the whales captured, I beg to submit the following observations.

The whaling industry is to-day carried on all over the world in an uneconomical, wasteful manner, and with no thought for the future. Such methods will probably result in the automatic extinction of the industry.

The industry could be established on a comparatively firm and sound basis by regulations and investigations providing for, *inter alia* :—

1. Protection of the cow whale during the breeding season.
2. Protection of the cow whale during the period immediately after the birth of the calf.
3. Prohibition of the capture of immature whales.
4. Limitation of the number of whale-catching boats operating in a particular locality.
5. Regulations requiring that all whaling factories shall be equipped in such a manner that every whale captured shall be expeditiously dealt with, and that every portion of the whale shall be worked up into an economically useful material without any waste.
6. A searching investigation into the manner in which the industry is at present prosecuted, together with the compilation of statistics embracing, among other things, the following information :—

   (*a*) Number of whales caught.
   (*b*) Species of whales caught.
   (*c*) Species caught at certain periods.
   (*d*) Sizes of all whales caught, giving dates.
   (*e*) Period of the year during which whaling is carried on.
   (*f*) Number of pregnant whales caught, giving dates.
   (*g*) Number of cows caught which were accompanied by calves, giving dates.
   (*h*) Number of whale-catching boats operating, with description.
   (*i*) Factory equipment, showing number of meat and bone digesters, blubber boilers, secondary blubbber boilers, fertiliser drying and grinding plant, size of steaam boilers, &c., &c.
   (*j*) Number of employees at factory.
   (*k*) Value of oil, fertilisers, finners, whalebone, ambergris, &c. produced.
   (*l*) Weight of ditto, ditto, ditto.

Whales are migratory mammals, and it would, therefore, be useless to enforce such regulations as the above in any particular locality.

The regulations should be international, embracing every sea, and all territorial waters.

The whaling industry is carried on in Natal.

I submit this industry has to bear exceedingly heavy charges imposed by the Government. The Government of South Africa probably derives more income from this industry, with a minimum amount of trouble, than is the case with any other industry of similar magnitude in the country.

The charges are as follows :—

The Durban whaling companies lease the land for their factories from the Government at a very high rental. They also pay rent for their railway sidings, slipways whereon the whales are landed, and for their powder magazines.

The Durban companies pay the following licence fees :—

	£	*s.*	*d.*
Licence for whaling - - -	50	0	0
,, ,, trading - - -	50	0	0
,, ,, each boat - - -	5	0	0
,, ,, factory - - -	1	0	0
,, ,, each harpoon gun -	0	10	0
,, ,, magazine - - -	5	0	0

They pay a very high rate for the transport of the whales to the factory, viz. : —

	£	*s.*	*d.*
Landing charge - - - -	1	10	0
Wharfage - - - - -	0	10	0
Railage - - - - - -	4	0	0

Total per whale. 6*l.*

The railage is a very heavy item; the distance between the place where the whales are landed and the factories averages about 1½ miles.

In addition to the above the Government derives considerable revenue from the transport of coal, stores, &c., to the boats and factories, floating dock charges, harbour and light dues.

The import duty of 15 per cent. on whaling gear is a heavy duty, because the gear is used for purely industrial purposes. Such gear is not obtainable from the United Kingdom.

In view of the charges enumerated above, and of the high cost of commodities in general, living, &c., I submit that the whaling companies operating from Natal do so at a great disadvantage when compared with whaling companies operating in other parts of the world.

There is about 300,000*l.* invested in the whaling industry of Natal.

There are six companies operating from Natal, five from Durban, and one on the south coast, about 30 miles from Durban.

The industry was established in 1908, and the following figures show the growth of the business :—

Year.	Number of Whales.	Number of Boats.
1908 - - - -	106	2
1909 - - - -	155	2
1910 - - - -	532	5
1911 - - - -	1,061	9
1912 - - - -	1,006	18
1913 - - - -	1,256	22

From 1908 to 1912 inclusive, the majority of the whales captured belong to the humpback species. During the year 1913 many sperm, finner, and blue whales were caught, and there was a corresponding decrease in the number of humpback whales caught.

The value of the products for the 1913 season was about 150,000*l.*

The Natal whaling industry was inaugurated by a Norwegian company, but the majority of the companies are now carried on on British capital.

6941. **(Sir Alfred Bateman.)** You give rather a bad account of the industry, because you say that only two companies have paid dividends up to the present time?—**(Mr. Egeland.)** Yes, and only one paid a dividend last year.

6942. What percentage?—Last year, one company paid 20 per cent., but the others none at all.

6943. You do not think an international agreement would do much good?—I think not. I think it would be very difficult to bring it about, and I do not see what good it could do.

6944. Why is that?—What would be the object?

6945. I was rather thinking of the Convention about fur seals, and against killing seals at certain times, and so on, on the lines of regulation and restriction; you do not think that would be possible in whaling to-day?—I hardly think so. I do not see how it is practicable in whaling.

6946. Mr. Bearpark, I gather you are of the contrary opinion?—**(Mr. Bearpark.)** I am. I think regulation of the industry would be to the benefit of all the people engaged in the industry to-day.

6947. That would have to be an international agreement, would it not?—Yes, undoubtedly. It would be useless to frame regulations for one part of the sea, whereas different regulations might obtain in another part.

6948. The whale is a great traveller?—Yes. In most places where they are caught, the whales are migrating. In some few places the whales remain for months, but the general rule is that they are migrating when they are caught. **(Mr. Egeland.)** I think the Baleen whales do not remain stationary in one place throughout the year. I think they change their habits. I think the Baleen whales that we have from May to November leave us in November and go to the Antarctic for the summer, and return in May.

6949. Do they keep south of the line?—Yes, they keep in the Southern Hemisphere.

6950. They are not the whale of North America?—No, although they have the same species there also.

6951. I suppose it has never been possible to mark a whale in any way?—It would be very difficult. I think it is quite likely that some of the whales we get here come from the Falkland Islands, because we have had wounded whales here which were probably wounded by whaling companies operating there.

6952. But the gist of the thing is that there are too many companies to-day, is it not?—Yes. That is the great mistake that has been made here.

6953. Would not that cure itself—will not some of the companies go out?—They will. That will be inevitable, but I think it is a great pity, because a lot of money will be wasted.

6954. And the industry is becoming very expensive?—It always was expensive, especially here in this country.

6955. Why is it expensive here to-day?—In the first place, the Government tax is a very severe burden, and the duties also.

6956. You mean 15 per cent. on various materials?—Yes. I think all whaling gear, and the special gunpowder used for killing whales, should be duty free, being for industrial purposes.

6957. We have nothing to do with the duties, but have you made any representations about it?—I think we have.

6958. Is there any other reason why whaling should be expensive here?—Well, the cost of living is rather high in this country compared to other whaling fields, and, of course, we have to feed our men. It costs 4*l.* or 5*l.* per month. **(Mr. Bearpark.)** The men engaged in whaling here obtain more money than in other parts of the world. There was a strike among the whalers, and they demanded practically South African rates of pay although these men do not live in this country. They come out under a contract and are fed by the companies and repatriated at the end of their contracts. Therefore, there is no necessity for them to spend any money here. They live on the boats and at the stations, so they do not live in the country in the true sense of the word.

6959. But they come under the influence of the high wages?—Yes, and they had a strike, and to-day they are getting what practically amounts to the South African rate of wages, which is considerably higher than whalers get in other parts of the world.

6960. It is a rather hazardous life, is it not?—No, there is no more hazard, I think, about the life than any other. There has only been one man drowned since whaling commenced in Durban.

6961. How long ago is that?—About six years ago. **(Mr. Egeland.)** And that was not due to the whaling work. He fell overboard in the harbour. With the Norwegian methods, there is really very little danger. **(Mr. Bearpark.)** Whaling to-day is carried out by powerful modern steamers and not from the small harpoon boats that we read about in the novel.

6962. **(Mr. Bowring.)** Prior to the advent of the steamers, what was done with the whaling industry?—**(Mr. Egeland.)** Practically nothing. Occasionally a sperm whale or a right whale might be found near Port Elizabeth and cut up in a very primitive fashion and used up there, but there was no whaling, properly speaking, before 1908.

6963. There were no whaling stations or whaling boats fitted out for the purpose?—No.

6964. So the advent of the steamers was the commencement of whaling in South Africa?—Yes. **(Mr. Bearpark.)** Steamers had been operating in other parts of the world before they came here. **(Mr. Egeland.)** In 1907 the Natal Government granted a lease of land at the Bluff, and I proceeded to Norway and formed the first whaling company. They brought out the first two steamers. That company was successful, so also was the second company—the Union, and now it has been overdone.

6965. How many whales were caught the first year by those two boats?—Not many. They started late in the season, but the company paid a dividend of 25 per cent.

6966. And the second year?—Seven per cent.

6967. How many boats worked that year?—The same company and the same number.

6968. But there were other competing companies?—No, not that year. **(Mr. Bearpark.)** In 1908 two boats caught 106 whales, that was the first year.

6969. And then they paid 25 per cent.?—Yes, and the second year the same two boats working caught 155 whales.

6970. And why did they only pay seven per cent.?—I could not tell you.

6971. You do not know what was the cause of that wonderful drop?—No. **(Mr. Egeland.)** In the following year they did better, considerably better in 1911.

6972. But with the incoming of more boats, the numbers of whales per boat have been decreasing?—Yes. In 1911 we had an average of 140 per boat, and last year an average of fifty. Seven whalers in 1911 caught 1,000 whales as against 25 which caught 1,247 last year, an average of 50 per boat last year as against 140, or approximately so, in 1911.

6973. And of all the companies only one paid a dividend?—Yes. Last year.

6974. And that was 20 per cent.?—Yes.

6975. Why should there be such a wide difference?—I suppose there is such a thing as luck. I happen to be managing director of that company, so I do not care to say. In 1911, we paid a much larger dividend than that, over 100 per cent., but that was an extraordinarily good year.

6976. You struck a good many sperm whales that year?—No, not one. But we struck oil. The market was good.

6977. You had the same boats?—We had three in 1911.

6978. In regard to these boats, they are mostly built in Norway, I suppose?—Yes.

6979. And you get all your gear from Norway?—Yes.

6980. Are they allowed in duty-free here?—No, 15 per cent. is charged on whaling gear. There is no duty on boats.

6981. The gear which is brought in with the boat, does that pay 15 per cent.?—Yes.

6982. When the boat first comes with full equipment?—I think that comes with the boat, and is overlooked, but if you import, as we have to do annually, a number of lines and harpoons, we have to pay duty on those.

6983. When the boat comes with full equipment it comes duty free?—Yes. **(Mr. Bearpark.)** I have paid duty on the equipment of a new boat.

6984. But surely there must be one rule for both. They cannot collect it from you?—I thiuk the fact is that the Customs did not realise that the gear was coming in the whaling boats. It was something quite new to them. They evideutly did not know the boats were bringing gear.

6985. Probably the first year you came in duty free, and later on they imposed duty?—Yes.

6986. In any case the boats are free?—Yes. **(Mr. Egeland.)** All ships are duty free.

6987. You refer to the licence fees being very heavy. Now, do you know what is paid in other parts of the world for a whaling licence?—I know some of them.

6988. Are they really lower than what you are paying?—I think so. In some places they have hardly any charges, I think.

6989. In Norway they are heavy?—There is no whaling done in Norway to-day.

6990. It has died out altogether?—Yes, it is finished.

6991. Because I know in my part of the world—Newfoundland—they started with a whaling licence of 300*l.*?—Yes, but they did the right thing there. They insisted that whaling stations should be a certain distance apart. They were quite justified in doing that, and the company could afford to pay that licence.

6992. That is the very thing I was going to ask you. Is there no regulation here about the distance between factories?—No. We made representations to the Government suggesting that they should adopt certain regulations to protect the industry on the basis of the Newfoundland regulations, and the Japanese ordinance, of which I had a copy and sent it to the Government. It is a very good ordinance.

6993. **(Mr. Bowring.)** You can, perhaps, tell us roughly what it is?—All applications for licences have to be sent in to the Department of Agriculture, I think, and in the application all particulars must be given as to the ships, the methods, and the places where they intend to operate, and it is then for the Department to refuse or grant the application for a licence as it thinks fit. If there is room for another licence at that place it will probably be granted, but if they think there is no room it will be refused. And that is a provision that struck me as being a very good thing, and another excellent provision was that within the whaling fields of Korea and Japan the maximum number of whalers was fixed and limited to 30, and on no account would more whalers be allowed there beyond that number.

6994. Each company was given a special area?—Yes.

6995. And you think that those restrictions should be carried out in this country?—Well, I think it is now a case of closing the door after the steed is out. I think the Government has gone too far here to give away rights which they cannot withdraw, and I do not think the Government can assist us now in any way. But in regard to the opening of any new whaling field, I think they would be well advised in providing against the overdoing of the industry and restricting it and keeping it in reasonable limits.

6996. In this country the reduction of the number could not be managed without fair compensation, I suppose, being paid to those companies which were dispossessed?—Yes.

6997. Are there any other points they could go to? Any new areas?—In South Africa, *i.e.*, south of the line, we had last year about 30 companies on the west and east coasts, whereas I hold there should not have been more than 12. Half-a-dozen on each side would be ample, because here you are simply dealing with migratory whales.

6998. Do not they come at certain seasons and stay over a period?—No, they migrate. Some are here to-day and others to-morrow. They come in driblets. If they all came on the same day we should not be able to do any business at all. But the number of whales that frequent these waters is not sufficient to justify the large number of companies which are allowed in any one port. I do not think there should have been more than one or at most two companies in any one port.

6999. Are there no special feeding grounds around here?—No, of course, they follow their food in the currents. There is food, but they do not stop. They are constantly migrating up the coast and down.

7000. You do not know where they go?—Not exactly.

7001. How far south and north, for instance?—It is quite likely that some go as far as Whaling Bay in the Antarctic, where Amundsen and Scott have been. They saw an enormous number of whales. But we are fairly entitled to presume that many go across to South America and the Falkland Islands and return again in the proper season.

7002. You get a fair number of right whales, do you not?—Very few—about two or three a year.

7003. The right whales surely do not go north of this?—No, I do not think they go much further than this.

7004. Because I understand the right whale is one that likes to be in very cold water?—Yes. Some of the hump-back whales seem to go right across the line, though many of them do not go so far. **(Mr. Bearpark.)** The season here is from May to November and the Falkland Islands season is from November to April, so that is presumptive evidence that possibly the whales are travelling between these points.

7005. You get the same kind of whales as they do?—Exactly, the hump-backed whale particularly. **(Mr. Egeland.)** I have heard from master mariners coming from South America in May or June say they have passed a large quantity of whales coming this way—making for South Africa, and that seems to support my theory.

7006. Do you find the whales are fatter at certain seasons than others?—When they come from the Antarctic they are fatter—that is early in the season.

7007. And on returning they are lean?—Yes.

7008. What quantity of bone do you get from the whales?—Do you mean skeleton bones?

7009. No, whalebone.—That depends on the kind of whale. The whalebones of the Baleen whale are not properly called whalebone, but finners. They are short, coarse, and brittle, and, in fact, of hardly any value at all to-day. Two years ago you could get 30*l.* to 60*l.* a ton, but to-day it is only about 6*l.* or 8*l.* a ton. But the right whalebone is, of course, valuable, although they have depreciated considerably in value.

7010. Merchantable right whalebone is worth how much?—I think about 600*l.* per ton. But three years ago it was up to 2,000*l.* a ton. I believe that they have now found a substitute for it in America.

7011. And your local whalebone is now only 6*l.* to 8*l.* a ton?—Yes. **(Mr. Bearpark.)** Just about the cost of the freight to Europe.

7012. It is hardly worth cleaning and dressing?—No.

7013. You complain about the rate of freight, which is stated here to be 1*l.* 4*s.* 9*d.* per ton?—Yes.

7014. How do you make up that ton?—It is the long ton, 2,240 lbs.

7015. That is taken to a port in England?—To London or Continental ports.

7016. Where is your principal market?—Glasgow is the principal market for whale oil. The extra freight is 12*s.* 6*d.* per ton. It was 7*s.* 6*d.* The increase has had the effect of causing more oil to be shipped to London, Hamburg, or Antwerp.

7017. One would not imagine that 1*l.* 4*s.* 9*d.* is excessive for barrel oil?—**(Mr. Egeland.)** The companies would be well advised in their own interests to go back to the previous rate of 20*s.* a ton.

7018. Then most of the oil would go to the United Kingdom rather than the Continent?—They would have more cargo. What they lose in rates they would make up in quantity.

7019. Have you no local oil market here?—Yes, we are working up one at the present time.

7020. I understand Lever Brothers have gone in for soap-making here?—Yes, they have started taking oil; last year they started buying.

7021. Do you know if they approve of it?—Yes, since the hardening process was discovered the whale oil suits all right.

7022. Since they got the hydrogenating process?—Yes.

7023. They apply that to whale oil?—Yes, you produce a solid, pure fat without smell. In fact, you can make margarine from No. 1 oil, and I believe they do make it in Europe.

7024. Do you think there is a future for your whale oil being made into margarine by the hydrogenating process?—I should not like to express an opinion. I think it could be used, but possibly people would be prejudiced against it. **(Mr. Bearpark.)** There is one large firm of soapmakers in this country who run their own whaling station. They are making soap exclusively from whale oil with practically no other ingredients. They have a station at the Bluff in order to be sure of supplies of oil. They are making soap on a very extensive scale.

7025. Has that proved satisfactory?—So satisfactory that they have been selling soap for some years in South Africa, and without any complaints. They have built up a big business. That would not have been the case had there been any objection. But the process they are using is, perhaps, not so good as hydrogenation. It is successful, but it may not be quite as successful.

7026. But it works fairly well?—Yes, as proved by experience.

7027. Do these people export any soap?—I understand that they are exporting a basic soap—a combination of the hardened whale oil with the alkali. But not in exactly a commercial form. It is, however, easily carried to the final stage by a further process.

7028. A base for making soap?—Yes, a lot of that soap-making base has been imported from the United States to the United Kingdom in the past, made from cotton-seed oil and similar material. **(Mr. Egeland.)** I think about half the output of Natal is now consumed locally.

7029. And you are hopeful that it will all be?—Yes.

7030. By selling locally you save the packing and freights?—Yes. But we get a corresponding short price.

7031. It should be a satisfactory market. I suppose they cut that off?—Yes.

7032. You referred to the protection of whales?—Yes.

7033. The protection of cow whales during the breeding season—is there any way of detecting the female from the male?—No. They are identically the same; you cannot tell from the boat. There is no difference, except under the water where they cannot be seen. **(Mr. Bearpark.)** If I might make a suggestion on that point, I would say that the only way one could bring about any protection from that point of view would be by the collection of statistics whereby one would know when it was expected that a whale would be with calf—possibly coming into very warm waters to deposit their young. There might be something in that. And if it were found by statistics that during a certain period of the year a great number of whales were pregnant or with their calves, it might be to the benefit of the industry to impose restrictions, and to protect those whales from being killed at that particular period.

7034. Do you think the whales have their calves at a certain period of the year?—**(Mr. Egeland.)** That is not my view. I think they calve at any time in the year like any ordinary mammal.

7035. And how often?—I do not think anyone can say with any degree of certainty. But it is generally believed that they can give one calf a year. I have heard it said in Iceland that the same cow returned three years in succession with a fresh calf and that would seem to indicate or prove that they calve once a year. But I think they calve at all times. Possibly more would calve in warm waters, but as far as we have ascertained we have noticed that cows have calves with them of all ages.

7036. So that it is impossible to protect the mothers at all seasons?—I see no possibility of protecting the mothers. **(Mr. Bearpark.)** But there are more calves accompanying the cows in the second half of the Durban season than in the first half.

7037. In regard to the factories, do you make the greatest use of the materials that you have?—**(Mr. Egeland.)** We use up everything—we make oil and fertiliser.

7038. You use the finners and the bones?—Yes. There is nothing more of any value when we have finished. After extracting the oil from the meat we dry the meat and make it into fertilisers, and the bones likewise. The oil is extracted by steam pressure, and the bones are afterwards dried and ground into powder.

7039. You have one clause in the regulations which says that every portion of the whale shall be worked up?—**(Mr. Bearpark.)** Yes, it is only in recent years, and particularly in Durban, after the factories have been fully equipped, that we have been able to deal efficiently with the entire carcase. Because the industry in Durban is under the control of the Health Authorities, and a number of technical men have been engaged on the work with the result that fresh appliances have been introduced for dealing with the carcases—more modern plants have been installed than was the case in former days when whaling was carried on in such places as Iceland and the Falkland Islands.

7040. I think we all agree with you in regard to the value of statistics?—That was my point—that statistics about whaling were probably more urgently required than about any other industry.

7041. Now there are charges for railage that I do not understand. You bring the whales into Durban?—**(Mr. Egeland.)** Yes, I think it is the only part of the world where we handle whales in this way on railway trucks.

7042. You land them on the slip and get them to the factory by rail at some considerable expense?—Yes.

7043. Why do you not land them at the factory?—We have the Indian Ocean there and very disturbed waters. It is impracticable.

7044. You could not put a slipway there?—No.

7045. Are there no harbours within your reach?—No. **(Mr. Bearpark.)** The first whaling station was in Durban Harbour, but it created a nuisance and it had to be removed to the other side of the Bluff.

7046. It seems to me a ridiculous plan to rail the carcase to the factory?—**(Mr. Egeland.)** I think we made a virtue of necessity. There is, of course, a certain amount of smell in connection with the industry, and though it is absolutely harmless it is not desirable to have a whaling station near the town. There was another reason also, and that was that there would be more room on the ocean side of the Bluff than we had this side. **(Mr. Bearpark.)** Further it it is not altogether a disadvantage, because the fact that we are on the railway means that we get our coal to the factory more conveniently, and we can send our oil away by the same way.

7047. So that is some compensation against the heavy rate?—No, not against the heavy rate, because we think that being on the railway line is no reason why this excessive charge should be made on the carriage of the whales.

7048. **(Mr. Garnett.)** I have read your interesting paper, and I have only one question to ask. You have given evidence about the great drop in the price of whalebone. How about other products, have they advanced?—**(Mr. Egeland.)** Yes. Whale oil is to-day very high.

7049. There has been an advance in some parts?—Yes.

7050. Can you tell me what sperm oil is worth to-day?—About 23*l.* or 24*l.* a ton in Glasgow.

7051. What is that up from? What increase does it show?—It is lower. Sperm oil has dropped. Ordinary whale oil has gone up. I think the average price of whale oil for the last ten years in Europe was 20*l.*,

and to-day it is 24*l.* On the other hand, sperm oil has dropped from 34*l.* to 24*l.* a ton.

7052. Of course, that must be very much lower than the top price which obtained, say, twenty-five or thirty years ago?—Yes. **(Mr. Bearpark.)** The main point is that sperm oil cannot be used for the hardening process.

7053. It used to be very largely used for lubrication?—Yes.

7054. Now, of course, mineral oils have driven it out?—Yes.

7055. Your other products. Have you any ambergris?—**(Mr. Egeland.)** We do not get any. We only had one piece of about 7 ozs.

7056. And fertilisers, have they appreciated?—Yes, they make excellent fertilisers, and we have constantly got better prices.

7057. So in place of the price of whalebone you have made it up in your other products?—Yes. Of course, whalebone is a minor matter; we do not get much.

7058. And you think the Government should grant no more licences?—Most decidedly not. I think they have gone too far.

7059. **(Mr. Sinclair.)** You expressed the opinion that Government should not grant any more licences. Have the number of whales decreased in the last few years?—I think so.

7060. One gentleman says there are millions of whales?—Yes, in the sea, but not here.

7061. Has the number appreciably diminished of late years?—I think there are less of a certain species than there were. For instance, last year you will see from my figures the numbers caught were only about 50 per boat as compared with 140 in 1911.

7062. And do you think the numbers have decreased because of the amount of competition, and the number of boats engaged in the trade?—It may be partly due to that, and it may be they have taken another course.

7063. Unless the number has been reduced owing to the number of those engaged in the trade, what object would be served by reducing licences?—There is no room for any more licences.

7064. Unless the numbers of whales have been reduced, what object would be served by decreasing the number of licences?—Because one or two companies may do well, three may mean loss, and four may mean disaster.

7065. That is a matter for those engaged in the industry. I could have understood if the number of licences issued had resulted in the schools of whales being decimated, the suggestion that licences should be reduced in number, but so long as the numbers are approximately the same what is the object?—There is another point, and that is this, that if the whales are chased as they migrate past the coast they become very shy as a rule and you cannot get within reach of them. You have to get within a certain distance for the shot to be effective, and if the whales are constantly chased they become very shy, because they are very intelligent, and they very soon get to know the distance it is safe to keep away, but I do think the number of whales has fallen off.

7066. That would seem to form a ground for reducing the licences?—It is also very difficult to get near them. **(Mr. Bearpark.)** It is more a question of area and the number of boats operating than a question of the number of licences. I do not think boats operating from Durban have made any appreciable difference in the number of whales near Durban, but I do think that the great number of boats operating here have had the effect of frightening the whales away, so that they are taking a different course.

7067. They would be pursued, I take it, by the boats that survived. However, you say that you think the only direction in which the Government can help you now is by reducing the charges in different directions?—**(Mr. Egeland.)** Yes, because I reckon they have allowed so many licences now that they are not likely to allow any more, seeing that the industry is not paying its way as a whole. I also think the railage charge of 4*l.* per carcase is ridiculously high for 1½ miles.

7068. I take it that you have made representations, but unsuccessfully?—Yes.

7069. **(Mr. Tatlow.)** Is the whale put bodily on the railway trucks and carried to the factory?—Yes.

7070. How long would it be?—The largest Blue-whale conger was 95 feet long. Average about 40 feet.

7071. How much would it weigh?—The largest about 100 tons.

7072. And how many trucks are used to convey the carcase?—One, two, or three, according to the size of the whale.

7073. What is the length of them?—They are specially constructed.

7074. What is the distance they are conveyed?—From 1½ miles to 3 miles.

7075. Is it only 2 miles to the factory?—It is only 2 miles to our factory.

7076. You spoke of the rate being exorbitant. What is the charge per ton?—They charge 5*s.* per ton on the oil to the Point.

7077. No, I mean for taking the whale bodily round to the factory?—The rate works out at about 1*s.* 4*d.* per ton per mile, but they are carrying mostly water, because most of the whale's carcase is water. Most of the fertilisers are carried over the country at 1*d.* per mile.

7078. It is rather a special service?—Well, we do the loading and the off loading.

7079. They provide the railway trucks and the locomotive power?—Yes, that is all.

7080. They have been approached?—Yes.

7081. What do you say is the charge on the products?—5*s.* for oil shipped from the factory to the Point, a distance of about 16 miles.

7082. **(Mr. Lorimer.)** What I gather from you is that you want more sympathetic consideration from the Government?—**(Mr. Bearpark.)** I am not looking for much sympathy.

7083. Your paper seems to suggest that you are hardly treated by the Government, and I thought you wanted more careful consideration than you had received?—Our chief complaint is that the Government has not confined the industry within reasonable limits. They have allowed the industry to be overdone to such an extent that it is hardly possible to make a success.

7084. You are not wanting any special consideration in respect to tariffs?—Yes, I certainly think so.

7085. I want to point out that that is quite outside our reference?—Yes.

7086. **(Mr. Campbell.)** You give here the amount of licences paid for whaling purposes. As I understand from what I can see of the system under which whaling is carried on here, small boats go out from Durban whaling on their own independently, and there are big boats, or at any rate one large boat, that goes out attended by small whaling boats and carries on the manufacture of whaling products on the boat. Is the licence for the same in both cases, and what is the licence charge?—There is only one floating factory belonging to Durban, and it is not operating in these waters at all. It happens to be in the harbour at present, but in a month's time it will proceed to the west coast, and that is its proper field of operations. We have no floating factory here at all. That one operates on the west coast at Walfisch Bay. The Provincial Government of Natal have imposed a licence of 5*l.* for each whaler; in addition to that we pay a licence to the Union Government Harbour Department.

7087. And does the Cape Government issue a licence?—I am not sure if they do.

7088. Whalers use the harbour at Table Bay?—Yes.

7089. What use would the regulation of the industry be by the Natal Government if the Cape Province, which is alongside you, does not co-operate to regulate the industry?—Well, I can only say this, that our expenses are already so high that it has been found by actual experience that only one out of six

companies has been able to make any profit at all. Our expenses are very high, and the licences and the contributions to revenue are, in proportion to the extent of the industry, the largest in the world in which whaling is carried on, I think, and any reduction in the charge which the Government would make would help to make the industry pay.

7090. You are referring to the expenses of carrying on the industry, but I am referring to your proposal to control the industry by means of some ordinance similar to the Japanese Ordinance?—I think that is too late now so far as we are concerned. I think it is a case of closing the stable door after the steed has gone.

7091. You are not in favour of any control of the industry at all then?—(**Mr. Egeland.**) I think not. It is too late here. The only thing we can expect the Government to do is to reduce its charging on whaling gear, railage, and so forth.

7092. Do you not propose a restriction of the number of the licences issued?—I do not think any more applications will be made.

7093. Does that not bring you up against the same difficulty, the Cape Province may issue a lot of licences?—No, the Union Government controls the licences now, I think. The Provincial Government and the Union Government both seem to have a say in the matter.

7094. That seems to mix the matter up still more?—Yes, I think they look upon whaling as a huge joke and a fit game for plunder.

7095. Do you not think it would be far better if the power of issuing licences in connection with an industry like this, which spreads round the whole coast, were restricted to the Union Government rather than to the Provinces?—Yes, certainly, I think there should be one authority to deal with the whole thing.

7096. Taking away the power of regulating the industry by the Provinces and giving it to the Union Government?—Yes, but the Provincial Council was looking for money and they thought there was chance.

7097. You think it would be better to have only one control?—There should only be one control, and I think that should be in the hands of the Union Government.

7098. Are there any other companies operating here outside the South African companies. Do the Norwegian companies operate on this coast?—No, not in Natal, except the one we have at the Bluff. The first company that started here was a Norwegian company, but I understand they are closing down this year because of competition.

7099. You have no companies working with Norwegian capital?—Only the South African Whaling Company.

7100. There is one company?—Yes, there is one at Plettenberg Bay.

7101. They would have a big advantage if they did not pay any duty on their accessories?—They would have to pay duty as well as we, because these things would have to be landed, and they would not be landed without duty being paid.

7102. Would they land any of it?—Yes, they have stations of their own on shore.

7103. But I am speaking of their whale-catching plant, they would not pay duty on that, would they?—Yes.

7104. Although they did not land it in South Africa?—They do land it in South Africa. They have stations on shore. There are no floating stations on the east coast now. There are several on the west coast, mostly Norwegian.

7105. You have no difficulty in that way of competition by outsiders?—No.

7106. The conditions are exactly the same?—Yes.

Natural Resources: Cotton.

APPENDIX II.

(B).

Report by Mr. N. F. Howe Browne on the First Crop of Cotton from the Chalumna Cotton Plantations, East London.

(*See Question* 5897, *p.* 279.)

At the end of July 1913 we commenced farming operations on the farm, Angler's Home, with a view to cotton-growing.

In all about 60 acres were planted, mostly during the month of November, the seed being supplied through the agency of the British Cotton Growing Association, and being of the variety known as Allen's Long Staple.

We soon began to find that conditions as they existed here were not altogether suitable for the plant, the incessant tremendously high coastal winds retarding its growth in the early stages of its development very considerably. This would apply to most crops, and the provision of adequate windbreaks was recognised to be a necessity. It was, of course, impossible to provide these last year, but as soon as it was possible, rows of plantains were planted about 50 yards apart all through the lands. These are generally used in these parts for the purpose, and appear to act very well. They are now commencing to make some growth.

In spite of adverse weather conditions, the crop made fair progress, and about February this year was really looking as well as a cotton plantation could, and, so far, I was very well satisfied with the possibilities.

Just about this time I began to notice that some of the plants were not looking healthy and seemed to be wilting. However, the trouble did not appear to be a serious one so far as the crop was concerned. However, I had several Government experts out here in March, and on their advice I sent several plants to the Government Pathologist at Pretoria for examination. I may state here, that since then, I have sent, at their request, about four different lots and they report that there is no doubt that the trouble is a fungus in the soil and is the cause of the disease known as Wilt. I was at first afraid that this had been introduced here by means of the seed which I planted, but the Government expert assures me that the soil fungus which is my trouble here is not the same as that in the States, though its ultimate effects might very well be the same, and the difficulty would have to be got over by planting Wilt resistant strains of cotton, as has to be done on a a great many plantations in U.S.A. After a very dry season, the whole country being afflicted with a prolonged drought, we got rain about the middle of March, and then such a tremendous weed growth appeared among the plants that it was quite impossible to cope with it with the labour available, and about 40 acres had to be abandoned and ploughed up. I may mention here that the weed growth on these river lands is quite exceptional, and even now is the greatest obstacle in our agricultural work on the farm

To proceed, picking commenced about the middle of April, but the plants had not matured the lint properly and the opening of the bolls was scanty, the consequence being that the amount which could be

picked in one day by a hand, and an inexperienced one at that, was small in the extreme, and since it is quite impossible to get this native labour to work at piece work, I found that paying children sixpence a day and feeding them made the gathering of the crop more expensive than it is anywhere else in the world. Indeed, it is my opinion that the Kaffir labour here is absolutely impossible for the gathering of a cotton crop which has to be done by hand. We are finding that labour-saving implements are just as necessary here in agricultural work as they are in countries where farm labour is supposed to be more expensive. I find that this labour is the most expensive I have ever come across, though it *appears* to be cheap enough. As a matter of fact, the greatest obstacle here to cotton growing is the labour. We are situated in the midst of a population of about 150,000 natives, and I am certain that if we had a hundred bales of cotton which wanted picking I could not get the work done, for when the picking season was on these natives would have reaped their mealie crop, and when they have food to eat, no price will make them work. What can be done in the future with white labour is a problem which has yet to be tackled, and one cannot but hope that it soon will be, for there is no doubt that this part is much too good for the Kaffir and his laziness.

In all we picked only two bales of about 400 pounds of lint in each, and consequently the crop was run at a very considerable loss, though this was not entirely the fault of the weather conditions. There can be no doubt that the crop was planted too late, for it takes longer to develop its bolls here owing to the fact that it is not nearly as hot as it is in the established cotton belts of the world.

A sample of the lint produced was sent to the British Cotton Growing Association, and they report its value as 6·30 pence based on American Middling, 6*d*. This price is, I must confess, somewhat lower than I had expected, and I am afraid that we will have to improve on that to be successful here.

To sum up, my experience this year has shown that, first of all, suitable windbreaks must be provided throughout the cotton fields, for the winds are incessant and severe.

Secondly, the cotton takes much longer to develop here and it seems to me that that difficulty would best be met by the development of a local variety for these parts which would develop and open quickly under the prevailing conditions. This is by no means impracticable.

Thirdly, I do not consider that the disease which appeared in this crop would prove to be an insurmountable difficulty, should cotton prove to be a paying crop here, for there are many Wilt resistant varieties which could be procured and planted.

Fourthly, the labour difficulty is a serious one. As I have gone into this more or less minutely in the body of this report, further comment here is not necessary, except to state that my evidence given before the Commission*, was before I had actually come into contact with it as a picking proposition.

In conclusion, I may state that we are planting another crop here this year. Indeed, it is already in the ground and most of it up, so that we may give the plant another thorough trial in the light of past experience.

N. F. HOWE BROWNE, Manager,
The Chalumna Cotton Plantations,
Angler's Home,
East London,
South Africa.

October 1914

* *See* pp. 275-279.

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DOMINIONS ROYAL COMMISSION.

ROYAL COMMISSION ON THE NATURAL RESOURCES, TRADE, AND LEGISLATION OF CERTAIN PORTIONS OF HIS MAJESTY'S DOMINIONS.

MINUTES OF EVIDENCE TAKEN IN THE UNION OF SOUTH AFRICA IN 1914.

PART I.

(PART II. is printed as [Cd. 7707].)

(*For previous publications relating to the work of the Commission, see p.* ii.)

Presented to both Houses of Parliament by Command of His Majesty.
December 1914.

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(*c*) Railways, Harbours, and Coal for Bunkering and Shipment.

III. Empire Development.

IV. Natural Resources :—

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Do. *Natural Resources, Trade, and Legislation* [Cd. 6517].
New Zealand, 1913 [Cd 7170].
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MINUTES OF EVIDENCE

TAKEN BEFORE THE

DOMINIONS ROYAL COMMISSION IN THE UNION OF SOUTH AFRICA IN 1914.

Part II.

V.—MINING AND MINING CONDITIONS.

CAPE OF GOOD HOPE.

Cape Town, Wednesday, 25th February, 1914.

Mr. Herbert Warington Smyth, M.A., LL.M., F.G.S., M.I.M.M., Secretary for Mines and Industries for the Union of South Africa, called and examined.*

1. **(Chairman.)** I understand you are Secretary for Mines and Industries?—Yes.

2. Would you make a general statement as to the mineral resources of the Union of South Africa?—I thought it would perhaps help the Commission in commencing their investigations if I simply summarized some of the main features, leaving it to other members of the Department afterwards to present evidence dealing with matters in greater detail. For that purpose, I have brought a small map,† because I think it will help to clear the minds of the Commission as regards what you have before you, and I think I had better first of all group before you the main mineral deposits as they occur on the map. I may remind the Commission that the main mineral output of South Africa is that of gold. For the year 1912, the output was valued at 38,690,000*l.*, and the latest figures which we have just received for 1913 show that the output will have been 37,374,000*l.*

3. **(Mr. Lorimer.)** I see for 1911 the output was 34,000,000*l.*?—Yes.

4. Was the increase from 34 millions to 38 millions in 1912?—Yes. I may say the figures in the draft statement prepared by the Commission, which I have seen, for 1911 should have been 35,049,041*l.* So there was a considerable increase in 1912, and probably that year marks our high-water mark.

5. **(Chairman.)** Are those figures in any printed report?—The last figures for 1913 are not yet printed. Our Annual Report for 1913 will be out in a few months.

6. And the 1912 figures are found where?—In our report for that year. It is interesting to remind the Commission that of the total production only 1½ million is produced outside the Witwatersrand mining area within the borders of the Union, so that the main gold-mining centre is, of course, the Witwatersrand area, including Heidelberg.

7. **(Mr. Lorimer.)** What is the area of the Witwatersrand?—The length of the reef is about 60 miles. I will just point out as we go along the situation of the main deposits on the map. The Witwatersrand is well marked on all maps by the convergence of the railway lines, and it will be noticed that every port is trying to get into direct connection with that central area. That 1½ million which is produced outside, you may say, is produced along the edge of the mountains on the eastern side of the Transvaal. Wherever you enter the country you have to climb up this mountain ridge, or escarpment, to get on the central plateau of the high veldt, and the Witwatersrand is the highest part, at about 6,000 feet, which divides the rivers flowing into the Atlantic from those which flow into the Indian Ocean. Well, perhaps one or two main features with regard to that industry will be interesting. I have only the figures for 1912. Those for 1913 are naturally very extensive and we are not able to get them into proper form until some months after the end of the year. We hope to have our report for last year ready by May, and that will give the latest figures for 1913. But the figures for 1912 will not be altered much for 1913. The tons milled for that output which I gave you were 25,657,000. The value per ton had an average of 28·86 shillings and the working costs 18·75 shillings. Thus, the average working profit was a little over 10*s.* per ton.

8. **(Chairman.)** Can you give us the working costs in previous years?—Yes; I can do so later.‡

‡ *Note.*—The witness subsequently forwarded the following statement:—

Witwatersrand Producing Gold Mines.

Year	Tons Milled.	Recovery per ton.	Cost per ton.
	1.	2.	3.
		s. d.	*s. d.*
1902	3,416,813	42 0	25 9
1903	0,105,016	39 9	24 9
1904	8,058,295	38 6	24 4
1905	11,180,422	35 10	23 6
1906	13,571,554	34 6	22 2
1907	15,523,229	33 11	20 10
1908	18,196,589	31 5	18 0
1909	20,543,759	28 11	17 1
1910	21,432,541	28 6	17 7
1911	23,888,258	27 11	18 0
1912	25,486,361	29 0	18 8
1913	25,628,432	27 9	17 11

* For a statement by this witness as to the South African coal bunkering and export trade see p. 155 of [Cd. 7706.]

† Not reproduced.

9. And the value per ton for previous years?—Yes.* The profits for the year were 12,678,000*l.*, of which dividends were paid to the amount of 7,960,000*l.* There were certain payments for interest and redemption of debentures, 600,000*l.*, and the repayment of certain loans, 800,000*l.* That has to be added to the dividends. An interesting point connected with the gold-mining industry of the country is this—the amount spent in wages was 14½ millions, of which over 8 millions went to white men in wages and 6 millions went to natives.

10. Can you give us the number of each?—I can. The number of white workmen was 24½ thousand. The number of natives I can give later. The amount expended in stores is considerable and amounts to over 10¼ millions. I am referring to 1912. The value per ton is little over 28*s.*, and working costs is 18*s.* The really important thing is to keep those two figures apart, and, owing to the large tonnage of lower grade ores on the Rand, the lower you can get that figure of 18*s.* the greater the tonnage that is going to be opened up. The danger of postponing that day too long is that, when you have to pass large bodies of low-grade ore, you will never, if you leave that mine standing sufficiently long, be able to touch it again. The ground will have moved and that particular body of ore will be a loss to the community. All these facts can be given you in greater detail by the Government Mining Engineer in Johannesburg.† With regard to natives, the actual number at the end of December was 207,600.

11. **(Sir Rider Haggard.)** Did you say 24,000 whites?—Yes. In that month there were 24,500. I may say the general ratio is about 8·6 coloured men to one white man for 1912. That is on the gold mines of the Witwatersrand.

12. **(Chairman.)** Is this the Rand alone or all the gold mines?—That is the Rand gold mines. Next to gold, diamonds is the most important mineral in this country. For 1912, the figure was 10,061,000*l.* value as against 8,746,000*l.* for the previous year. I may say I have the figures for 1913, which show 11,389,000*l.* The diamond output comes from three main sources geographically. Kimberley, where there is a very large pipe or number of pipes. The extension northward of the Vaal River north-east into the Transvaal, what are called the river diggings, and these are worth mentioning because of the superior class of stone which is found in those diggings reaching from 92*s.* to 120*s.* a carat in 1912, whereas mine diamonds in certain areas were as low as 22*s.* a carat; so there was a big difference. The third main area of production is the Premier mine, close to Pretoria. This is just a short distance for the Witwatersrand. It is the largest pipe known and produces the largest quantity of stones, but they are generally of a lower value than those of the Kimberley area. Mention must also be made of a certain number of pipes in the Free State. The Kimberley area is the most productive. There are one or two important pipes in the Free State, the chief of which is Jagersfontein. There are a number of gashes or rents which have been filled with this pipe matter in the Free State, but they have not proved so rich, as a rule, as the true pipe. The Cape, which includes Kimberley and the river diggings, produced a total value of 6,190,000*l.*, the average value being 53*s.* per carat. The Transvaal produced 2,386,000*l.* worth at 22*s.* per carat, and the Free State produced 1,480,000*l.* at an average value of 48*s.* That made the total for 1912. The alluvial diggings on the Cape side and up into the Transvaal produced 990,000*l.* It is not of such importance, therefore, as the other mines, but the stones are superior. Our other most important mineral is coal, and the nearness of the coalfields to the Rand has been a most important factor in its development, and is, of course, of immense importance in the keeping down of working costs of the industry. I will just give you the production from the Provinces. The total value for 1912 was 1,999,000*l*; of that the Transvaal produced 1,020,000*l.* The average value at the pit was 4*s.* 4*d.* That is the lowest price we have. Natal produced 771,000*l.* The Free State produced 141,000*l.* and the Cape coalfield at Indwe produced 41,000*l.* All these figures are in our report for last year, and if you want further details these will be given by the officers of the department as you go round. We then get to much smaller figures. A large number of the minerals mentioned in the form given me by the Commission are hardly found by us at all. Tin and copper are the only important ones. Tin reached to over 360,000*l.*, mostly from the Transvaal. Copper amounted to 556,900*l.*

13. **(Mr. Lorimer.)** Have you copper in the Cape?—Yes. The Cape mines have been working since the seventies. Then right up in the extreme corner of the map, at Messina, there are a large number of old workings which have been opened up, and the present Messina property is very promising. We are in hopes that this is going to make up for the falling off from Namaqualand. In 1912 the Cape output was 507,000*l.*

14. Is it smelted?—It is converted into a matte and taken away.

15. Then 507,000*l.* is the value of the matte?—Yes. The Transvaal output was 49,000*l.* and that is probably increasing. We have a little asbestos, 18,000*l.*, and also some lime, 130,000*l.*, and salt, 63,000*l.*, but otherwise our mineral production at the present moment is not very great. The list will be found in the report.

16. **(Chairman.)** What is the proportion of mineral exports to total exports?—The value of the mineral output for 1912 was 52,711,000*l.* Total exports about sixty-six millions sterling.* Thirty-eight millions was the high-water mark for the output of gold.

17. Is that likely to be exceeded in futnre?—I am inclined to think that we shall not easily exceed that value from the gold mines. A number of outcrop mines are getting near to exhaustion. It is true a number of big properties are coming into production on the East Rand, but it is difficult to estimate exactly what their effect will be. I do not think the increased output from those will meet the diminution from the old producers shutting down, and I think it will prove to be our high-water mark for any period.

18. I have read Statement 7 put before the Economic Commission by the Transvaal Chamber of Mines. Does that represent the best technical view and the opinion of your Department also?—The Government is unwilling to make a definite statement, because we have considerable hope of a reduction in working costs which will open up large areas of ground now unpayable. I may say here that a certain mine is working at 11*s.* per ton costs, and at another to-day portions are being worked at a value of 2·4 dwts. only, and the working costs are actually under that figure.

19. 2·4 means about 10*s.*?—Yes. Costs are as low as 7*s.* 9*d.*

20. Including everything?—Yes. That is quite a recent figure. One has not examined it carefully, but the report has come down to us, and it is a pretty promising indication of what can be done.

21. What mine is that?—The Knights Deep.

22. Is there anything special in the treatment?—I think the details will be better given by the Government Mining Engineer.

23. What do you call the present paying level?—16*s.* to 18*s.* It is estimated that there are about 400,000,000 tons of ore just below that figure.

24. What is the estimate of the tonnage above 18·75*s.*?—Roughly, in existing mines there is supposed to be over 500 million tons.

25. Dealing with Statement 7, which I mentioned just now, was that view put forward recently or has it been the current view of mining experts for some time?—I think it is a new view. Hitherto, I think, there has been a tendency to look forward with the hope of further great expansion, and there has been a great deal of optimism on the part of people who

* *See* Note on p. 1. † *See* evidence of Mr. Kotze; p. 42.

* *Note.*—The following additional figures were afterwards supplied by the witness:—

STATEMENT of value of mineral exports compared with value of general exports for the calendar years 1911, 1912, and 1913.

	1911.	1912.	1913.
	£	£	£
Minerals	45,302,513	49,394,517	51,854,497
General	57,908,214	63,272,743	66,659,552
Percentage of minerals to general	79·05	78·06	77·78

have not carefully examined the data, and lately there have been a number of disappointments in certain sections. Grades have been lower than expected—working costs higher. A number of mines have had to close down. I think a number of the engineers were considerably surprised themselves at the results they have come down to in working out their facts and figures. The gold contents of the Rand are not uniform along the strike, and comparatively great local variations have occurred, leaving room for much difference between calculated and proved values in certain instances, both along the strike and in depth. There is still a good deal of difference of opinion as to whether the estimate is not unduly pessimistic. I think one object of the statement was to combat this too vague and optimistic spirit, and to show that the industry needs a certain amount of nursing. Also, that it cannot be relied on for unlimited taxation.

26. **(Sir Jan Langerman.)** Has it not been your experience that where the theoretical life of a mine is given, in practice that life has to be considerably extended?—Yes. That is one of those things you cannot explain scientifically or foretell with certainty. But there is no doubt that you nearly always find the actual life to exceed the estimated life.

27. **(Chairman.)** What about the continuance of richness in depth?—That is also a matter on which nearly everyone will give a different opinion. My own opinion is that there is a slight diminution in the gold contents. Of course, we know the real outcrops were very rich. Those surface deposits were out of proportion entirely to the main contents. But when you come to the middle deeps and contrast them with the deep deeps, I think, on the whole, the tendency is to meet a slightly poorer grade the deeper the mine.

28. Increased richness on top being due to secondary enrichment?—Yes.

29. What is the extreme depth at which working is deemed to be payable?—There is another debatable point. We have taken, for the purpose of proclaiming ground under the Gold Law, 7,500 feet as the limit. And, as far as we know, that appears to be fairly reasonable. The temperature of the underground rock on the Rand rises comparatively gradually. It is, roughly, a degree for 200 feet, and that is much more slowly than most other countries.

30. **(Sir Jan Langerman.)** You expressed the opinion that there is a falling off in depth. But is not that due to the large stamping power and the use of cyanide—that they are now able to mill poorer rock owing to the large stamping power?—Yes. There is a great deal in that, certainly. It is a factor in the situation.

31. **(Mr. Lorimer.)** Is your constantly increasing production of gold coincident with higher or uniform or lower grade?—Well, we were discussing the question of grade, and I am rather inclined to think the grade is falling in depth. There are, however, factors which enable many to say that the grade is not seriously falling in depth at all.

32. At all events, you have a constantly increasing output and you have a fall in working costs?—We have had an increased output up to 1912. This year shows a falling back slightly.

33. Is the Cape Copper Company's mine the oldest in the Union?—Yes.

34. What was the output of copper for the Cape Company's mine—the average—one year with another?—Last year the total value was 500,000*l*.

35. Is that sent away in matte?—Yes.

36. Do you happen to know whether, as in Australia, there is any gold or silver in the copper? I think practically none.

37. Can you tell me the value of the output in Namaqualand?—500,000*l*. I mean for the two mines—the Cape Copper and the Namaqualand Copper.

38. They are in different parts of the country?—No, close together. Practically the same formation.

39. Is the deposit a large one?—I am afraid not. I am afraid the mineral lenses are getting smaller in depth. They are running east and west. Each one of these lenses during the past few years has been a little smaller than the previous one above.

40. How is the dip?—They are big lenses of ore. You cannot say they have a dip. Well, the general dip of the ore body is to the east. The lenses follow one another down.

41. How far is this mine from the coast?—About 80 miles.

42. You say nothing about iron; but I understand you have enormous deposits in the neighbourhood of Pretoria?—We have possibilities, we think. There are two deposits which, during the past two years, have been looked at and appear to promise well. About four years ago the Government appointed Mr. Harbord to report on the possibility of an iron industry. Most of the iron deposits found up to that time, however, were titaniferous—had titanic acid in them—and it would be found impossible to smelt them satisfactorily.

43. Is there anywhere an analysis of that?—Yes. We have a Blue Book, dealing with the subject, which we published.* But a new factor has arisen since that date. We have found two new and promising deposits in the neighbourhood, one of Pretoria, and the other one to the north-west of Kimberley.†

44. Is that since your Blue Book was published?—Yes.

45. Have you any records of these new deposits?—Yes, we have a report dealing with the hematite deposits in the neighbourhood of Pretoria, which will shortly be published.

46. And of coal you have very large deposits?—Yes. The coal measures are very extensive in the Transvaal and north western Natal, but, unfortunately, in the Cape they are practically absent.

47. Is the iron field in the neighbourhood of the coal?—There is coal near the iron field, but there are certain iron works being erected at Vereeniging, on the borders of the Transvaal and Free State, on the Vaal River. These are readily accessible to the Transvaal and Free State coal-fields.

48. Are the iron works actually erected?—Yes.

49. Blast furnaces?—Yes. Of course, the question will be the market—whether they have a large enough market in this country—and what other markets are available.

50. It is a big expense. In New Zealand they have the same difficulty—splendid iron ore, but no market. Where could you ship?—To South America perhaps. Possibly Australia; possibly to the east coast, Zanzibar and the Dutch East Indies.

51. You are not likely to ship to Australia, but suppose this ore was good ore, and practically free from phosphorus and sulphur; could it be shipped to England as ore?—I would not like to say at this stage, until we have experimented as to the costs of production.

52. And the cost of freight?—Yes.

53. Of course, a very important factor would be the purity of the ore?—Yes.

54. **(Sir Jan Langerman.)** In mentioning that 1912 was the high water mark, you know that from January to July last year there was a scarcity of labour?—Yes.

55. You know also that we had a strike in July, and the native labour on account of that fell off during the second six months?—Yes.

56. Nearly 40 per cent. in fact?—Yes.

57. Would not that suggest that if we had had a full complement of native labour, 1913 would have been better than 1912?—I think it possible, if all conditions were favourable. Of course, if conditions were favourable always, I would not despair of even higher figures.

58. I would not suggest that the falling off in the output is entirely due to a falling off in grade, but that outside influences have had something to do with it?—Quite so.

59. You said we had 12 millions profit. You accounted for 9 millions; what has become of the other three?—I have those figures from the Annual Report; they do not quite agree.

60. Might I suggest that the 3 millions went in capital expenditure?—I think very probably, with profits tax, but at the moment I have not got the figures. I know the question arose in our report, but I cannot turn it up at the moment.

61. You see 25 per cent. of the profits disappear somewhere?—The figures were these: Profits for the

* Blue Book U.G. 21–10. † *See* Appendix II, p. 105.

year, 12,678,000*l*. Dividends, 7,960,000*l*; interest and redemption of debentures 600,000*l*., and loans 800,000*l*. That still leaves a bit unaccounted for.

62. What is the figure which the mines take as a payable limit: is it 4 or 5 dwts. in valuing the reserves, for instance?—They differ. I understand some take 5 and some 4.

63. According to the mine?—Yes.

64. Must there be special conditions which enable a mine such as you mentioned to work ore at 2·7 dwts.?—No doubt.

65. It would not apply to all the mines?—No.

66. In what directions would you suggest that working costs could be reduced?—That is not a thing that I think should really be put to me. It is difficult for anyone to answer at this stage. But there may be factors coming—cheaper power, cheaper labour, less capital costs in certain directions, less expense in inducing native labour to come to the mines, and specially increased efficiency of underground methods and use of the labour force, both coloured and white staffs generally. There may also be other factors, such as improvements in small stoping drills.

67. With regard to the reefs other than the Main Reef series, such as the Free State and Kimberley series, having an average value of 5 dwts. which have never been touched, have you any estimate of the quantity of ore which could be worked profitably, assuming that working costs could be reduced?—No I think the Government Mining Engineer probably has.

68. Because I take it that the ore locked up there is much larger than we have ever taken out of the mines in the past?—Which series?

69. The Kimberley series, the Free State series, the Bird series, which are apart, as you know, from our main and south reefs?—Yes.

70. **(Mr. Bowring.)** Could you tell us, Mr. Smyth, about the quality of the South African coal, which, I understand, is only valued at 4*s*. 4*d*. at the pit?—That is Transvaal coal. I would not like to give figures as to the calorific value off-hand. But I may say the rough position is this. Natal coal is the best stuff we have, from the Dundee District, and a good deal of it is reported on extremely favourably for steaming purposes. Transvaal coal is second in quality is not as good in caloritic power, or in ash, and so on. But the cost of production in the Transvaal is cheaper. We have no gas in the Transvaal mines. They are also very shallow.

71. The coal is fair steaming and poor gas coal, I understand?—Yes; I understand, however, that we shall have fairly good gas coal in Natal in some of the sections.

72. Could you give us any idea as to how it compares with South Wales coal for instance, for steaming purposes?—I have some figures which I could give the Commission.*

73. In regard to diamonds, you say these vary very much in value; is it possible to find a true diamond that does not pay to mine or sell, or is any true diamond worth only 22*s*. per carat?—The Premier Mine is working on an enormous scale, and it pays them to sell at that value. They are recovering a very large number of these small stones, but production has to be on a vast scale

74. It is the size which brings down the cost?—Yes, the scale of working more than the quality of the stones produced In the Free State there are several of these little gash mines which could produce a very good class of stone, but they cannot produce enough of them at sufficiently low cost, and the expenses of working those is so great owing to constant falling of reef, high charges per load—owing to small quantities handled, and so on—that they cannot work at a profit. Quite a number are shut down.

75. I understand that the difference in price of stones is almost entirely governed by the size? And quality. The "water" of the stone really affects the price more than the size. The quality is the more important factor in price.

76. **(Sir Alfred Bateman.)** Is your Department responsible for the statistics originally prepared for the Commission?—No. Those which you have are Census figures.

77. Because, from a statistical point of view, they are not very satisfactory; they are chiefly blanks? I may say that the difficulty in producing statistics on this subject is this: Where you have a highly technical matter like mining, the best statistics are those produced actually, as a rule, by people who have a technical knowledge of the subject, because they give what is wanted to be known. Our statistics published in this annual report, I may say, are more complete than those published in any other country in the world, and what I suggested to the Secretary a little time ago was that, when you have been round and taken your evidence, you will know exactly what you want, and we can then give you everything in tabulated form quite shortly.

78. In regard to gold, and the statement which was published in the London "Times" some months since, was it laid before Professor Chapman's Commission?—Yes, it was. Their report will be out at the end of this week, I understand.

79. Was it merely put in as a statement, or was a witness examined on it?—I understand so, but I cannot say for certain—the procedure was that a statement was put in and the Commission examined on it.

80. In regard to estimating the life of the mines; would the taxation of a mine with a five years' life be in any way less than that of a mine with a fifty years' life? It means that you have a shorter period for the amortization of your capital, but the estimate made by your engineers would be checked by the official of the Mines Department who deals with that subject, and, finally, the lives of mines are always settled by the Minister of Mines on the report of his officials.

81. Not by the owner himself?—No. But we always find that after a period we have to make a revision. I think I may say that when the lives are revised they have been given a longer period of life at each date.

82. We can understand that, from the point of view of wages, it might be an advantage if you employed a large amount of labour and only had a short life, to get these costs reduced; that would be an argument to put before any union you were dealing with: You may say, "If we can reduce costs and get increased efficiency our mine will last 30 years; and if not, only ten"? I do not think it has been used in that way.

83. The estimate you give of 12 to 15 hundred millions is the amount of gold still to be got from the Rand? Yes, in pounds sterling.

84. That is about 40 years' production, is it not?—Yes, more, at the present crushing rate of 28,000,000 tons per annum, but I think the tendency now, after this report, which has been so much discussed, is to say that is an under-estimate.

85. It is no estimate at all—it is almost waste paper, is it not?—Well, it must have been arrived at, I take it, on certain rough but ascertained figures—the average values—the average dips and the average areas and tonnages, and so on, of the various sections of the Main Reef series as hitherto disclosed in connection with the known milling capacities of the mines, and deductions from these

86. Does that appear in your reports?—No We have never bound ourselves to any definite statements in this connection

87. Mr Lorimer asked you about shipping iron to England; I suppose there is one advantage—you want homeward freights?—Yes; but, of course, our mealie export is a thing which is increasing. Agriculture is going on, and I do not know how far in a few years we may go. Possibly, we shall find home freights pretty full up.

87A. It was brought before me seven years ago here that back freights were almost impossible?—Yes, but the mealie trade has developed since then.

88. You do not know whether, economically, it has made a difference in freights?—I could not tell you.

89. **(Mr. Campbell.)** I think you said that the Government Mining Engineer would give us estimates as to comparative working costs and so forth?—Yes

90. You said something in reply to Sir Jan Langerman as to working costs, that they were being reduced. I suppose if it were shown that in Western Australia mines can be worked profitably under equal

* *Note.*—These figures were subsequently furnished for the confidential information of the Commission and are not printed.

conditions by white labour, there is a probability at least that, by different organisation, the costs can be reduced?—I would certainly say that there may be avenues through which working costs could be reduced. I should say that is an argument in favour of the possibility of further reduction. But it is always misleading to argue from one country to another.

91. Still, it does offer a probability?—Yes, I think it is an argument.

92. In reply to the Chairman, you suggested that that much discussed statement in regard to the life of the Rand was produced with a view to showing that the mines could not stand further taxation. Is that further taxation proposed?—No, I do not think so. But perhaps the word "taxation" was unfortunate. But, at all events, I may say "interference"—any tendency to hold back the development of the Rand. Many things are being constantly proposed with reference, for instance, to restriction of native labour recruiting. If you begin to interfere with these matters the industry has to show that you are doing a risky thing—that we have not got a great undeterminable source of wealth to which there is no bottom. We have had the same thing in Natal. People have talked about our immense coal resources. There are two good seams, and excellent quality, but in working them large bodies of coal have been burned and destroyed by dikes, thus largely reducing the available areas of workable coal. The mines are worked recklessly. Only one seam is being worked—the under one. There is a thin partition between that and the upper, which is falling in. That upper seam is being lost to the country for ever, and nobody realizes that it matters. I think it was that kind of view which the Chamber of Mines wanted to combat.

93. Was that statement got up at the instance of the Chamber of Mines or did it originate from outside?—I think the statement was prepared by the Consulting Engineers of the Groups and was put forward on behalf of the Chamber of Mines.

94. Did it originate outside of the Chamber, among the mining people themselves?—Well, of course, the Chamber is a representative body of mining people, just as the Chamber of Commerce is representative of the commercial community. It need not necessarily include all, but it includes the majority.

95. Even looking at the matter from the amended view you put forward, there is a certain amount of suggestion that the report was coloured, and that further enquiry would be likely to show that it need not necessarily be so pessimistic?—I am inclined to put it this way that future enquiry would be unable to get better data to go on, but future experience might show that they were wrong—that they were unduly conservative. I do not think that anyone can get better data than they can at the moment. But in another ten years we shall know far better. I think it is too early to pronounce a definite opinion.

96. What, as a matter of fact, is the system of taxation of the mines here? Is it heavy?—There is a ten per cent. profits tax on all profits made in gold mining.

97. That is levied on the balance sheet?—Yes. As examined by officers of the Revenue Department. There is also a system of what we may call, for the purposes of distinction, rent for mining ground, which is paid under a system of claim licences. The Gold Law is the Act in the Transvaal which deals with the working of mining ground, and under that Act, as soon as the owner or any other person discovers gold on a farm, the Government allows him a share of the farm as his own mining property up to one-fifth, which he can take over and do what he likes with, but the Government takes four-fifths and administers it for him, and allows mining to take place by a system of claim licences. These licences on a private farm are 5*s*. a claim per month where no mining is going on, and where mining is actually proceeding it is 20*s*. a claim per month.

98. Is that four-fifths taken over by the Government and administered as State property?—No. It constitutes a property which can be obtained by any person who conforms to the regulations for the time being; the licences then paid by that person to the Government are not all retained by the Government. Half is repaid to the owner of the property, so that he is represented all the time and gets his share. He gets one-half of the licence moneys. The Government only holds it in trust for the disposal of the mineral rights.

99. Its revenue is derived from licences only?—Yes.

100. The taxation of which you have spoken is levied on the balance sheets of the company, but the profits go to the individual shareholders of these companies. Are they subject also to income tax?—Not in this country.

101. There is no income tax in this country?—No.

102. The double income tax we have heard so much about in England, then, refers only to the profits tax levied on the balance sheets?—I suppose so.

103. There are further systems of taxation of mines here, are there not? Is there not some peculiar system under which the Government draws a very large revenue from the Premier Mine?—Yes; you were dealing with gold mines. We have a separate law with respect to diamonds.

104. Is this peculiar to diamond mines?—Yes. Diamond and base metal mining are dealt with under separate laws. Diamond mining is dealt with under three laws—one for the Cape, one for the Free State, and one for the Transvaal. Under the Transvaal Law passed in 1903, the State takes sixty per cent. of the profits of any mine which is discovered.

105. Of the ascertained profits of the balance sheet of the company?—Yes, and the owner gets 40 per cent. The owner of the mine is allowed to elect whether he will make up his mind to take these terms or not, and if he does not do so, the Government can make other arrangements.

106. I suppose that, compared with other countries, you have the heaviest taxation in the world?—I would not like to say that. I have not examined other countries sufficiently carefully. Of course, as regards diamond mining, that is a very peculiar thing, and it is a unique thing in its way. The Government of the Transvaal, like the Free State and the Cape, all took the line, as regards diamonds, that they were entitled to a large share. As regards base metal mines, our taxation is no worse than any other country.

107. Is there any well-grounded complaint that the heaviness of the taxation on diamond mining limits the extension of the industry at all?—Well, it has been said that in the Transvaal, where the proportion is 60 per cent., persons who are aware of diamond pipes have kept the knowledge to themselves, as they did not want to part with 60 per cent. Personally, I am very sceptical as to that, because, wherever there is any suspicion of a pipe, there is a tremendous amount of excitement, and we have had endless attempts to open pipes. We have never seen any reluctance for people to come forward.

108. You do not think there is anything in it?—If there were I do not think it would be a bad thing. I do not think that an unrestricted output of diamonds would be to the advantage of the diamond industry or the cutting industry or to the trade as a whole, and certain restrictions of output, on the other hand, are in the interests of all connected with the industry.

109. With regard to restricting the output, is there any arrangement between the Premier Mine and De Beers?—I understand not, at present.

110. Do you understand that any is contemplated?—I cannot say that I know officially. I have understood that there was some chance that a conclusion might be arrived at by all producers under certain circumstances, but, as far as I know at present, there is no arrangement.

111. It is being talked about?—Yes—by people outside. I do not know if it is talked about by people inside.

112. As a matter of fact, the present want of arrangement between the two sections of the mining industry has not affected the price of Kimberley diamonds, has it?—No. I may mention that the German South-West Africa Government has now taken over the control of the output from there and is limiting it. Whether there will be any necessity here for any limitation I do not know. De Beers do, as a matter of business policy, constantly restrict the amount of stones they put on the market.

113. You spoke of a special kind of mining carried on in rivers where the value of stones is much higher?—Yes.

114. Is there any very large area either known or suspected for the extension of that river mining?—Well, it is rather peculiar in some ways. From north to south it is quite a considerable area. If you follow the Vaal River from Potchefstroom downwards you may say that diamonds have been found on both sides. On the north of the river, on this side here, it extends up this way 20 to 30 miles. They are found in gravel deposits.

115. In the wash of the river bed?—No. In the gravel lying on the surface or just under. They are shallow in character. The moment you get below Warrenton you get the old Cape diggings. They follow closely the Vaal River as a rule. Some of them—what they call the deep diggings—have 30 feet above them of soil and boulders—and when you go down that depth and reach the river deposit there are enormous boulders, brightly polished, and under these boulders you find the diamonds, so that there are two classes of diggings.

116. Is that river industry of any size—in regard to diamonds produced?—990,000*l.* a year.

117. As compared with 9 millions?—Nearly one-tenth.

118. With regard to coal: you have given the production of coal in values, but is not the coal produced in South Africa mined at a cost which I should think is much below that of any other country?—Yes, I suppose so.

119. And sold at a lower cost?—Yes.

120. So we need the figures of tonnage?—The figures are:—Transvaal, 4,750,000; Natal, 2,765,000; Orange Free State, 525,000 tons; and the Cape, 74,000 tons. These figures are for 1912.

121. On the general question of the preparation of statistics: by what means are the figures as used by your Department obtained? Do you have a special office on the mining fields obtaining them?—We have, under the Act, power to call on any person who is producing minerals to supply these statistics. The head statistical office of the Department is at Johannesburg and under the immediate control of the Government Mining Engineer. You may call it his intelligence department, because there he has all his facts and figures as to values and so on. We issue forms on which we want the information supplied. We do not collect them locally—we get them by post.

122. You have a special mining statistical office for this purpose?—Yes.

123. You are almost able to guarantee the figures?—Yes.

124. **(Sir Rider Haggard.)** I think you told us you employed at Johannesburg 24,500 whites as against 207,000 natives?—Yes.

125. Can you say what is the average wage of whites and natives?—We have a very complete statement in the Annual Report, to which I think I had better refer the Commission.

126. Can you say roughly?—Well, the rate of earning for whites on the Rand per head per annum for 1912 is 330*l.* I have not got the native figures for the moment.

127. Did you not say that 8 millions went in wages to 24,000 whites?—Yes.

128. And 6 millions to the 207,000 natives?—Yes.

129. Would that not be about one-ninth?—Yes.

130. That means that the white man is nine times as valuable as the native?—The white man is employed largely in supervision.

131. You have one white man supervising eight natives?—Yes.

132. Is that recognised as the necessary proportion which the white man should supervise?—I should put it this way. The actual ratio of employment is one white man to eight natives, but in underground work, a man looks after far more. In certain classes of work you employ a white man alone or with one or two boys—say on pump or repair work and so on.

133. Natives, I presume, are incapable of any responsible work?—No. Selected natives are quite capable of responsible work. In fact, in Namaqualand, native boys there are doing mining work of a special character—a very dangerous kind—without an accident occurring once in a year.

134. Then they are not incapable?—No. The raw native from Portuguese East Africa is, of course, straight from a kraal—a rough fellow with a certain imitative faculty developed but no thinking capacity, or very little. But with regard to the coloured man from the Cape, and a large number of Zulus and Basutos, they are quite capable of running a steam hoist, and eventually taking up a class of responsible work. I do not say they are as capable as the best white man, but they are as capable as many.

135. But they are not paid at the same rate?—No. But under the mining regulations in the Transvaal there are certain classes of work which are only allowed to be performed by a competent person, who in the Transvaal is defined as a white man.

136. Is the reason for that the question of capacity, or do other considerations enter in?—I think that is based originally on the estimate of capacity. I think when it was passed by the Union Government it was more with a view to maintaining the *status quo*.

137. Then other considerations entered in?—That particular consideration probably did.

138. Are natives now capable of overseeing other natives?—Yes. There are boss boys—well-known instances everywhere. Exactly how far they are satisfactory I do not know. In many cases I think they are as satisfactory as whites. It depends on the individual himself and the class of work.

139. Supposing such a thing happened that there was a mine where it was quite impossible to get white labour, would it be possible to work the mine with native labour?—Do you mean legally or technically?

140. I mean actually?—With the aid of the ordinary mine staff, yes. I should say so, as in recent instances. Might I qualify that by saying this? In a very highly organised mining industry, such as the Witwatersrand, where all the mining is carried on at high speed under dangerous conditions and the organisation is of a high-class character, you could not tackle a mining problem there with only a native labour force as easily as you could tackle, let us say, a shallow colliery in Natal or a small outside mine in the Transvaal.

141. That is obvious, I think. Now about diamonds: are these pipes in any danger of exhaustion?—There appears to be no symptom at present of any exhaustion whatever.

142. You say coal is being wasted in Natal?—Yes.

143. Are there any regulations to prevent waste?—No, not in this country. There are certain difficulties about objecting to it. The Natal industry has had a rather uphill fight, and, of course, it is difficult to step in and increase their working costs, which is what it means. Also, it has not been the policy of the Government, so to speak, to tell a person how he should work his minerals. A proportion of the managers and mine-owners in Natal are alive to the waste which is taking place, and if they made up their minds to mine that second seam I am inclined to think a good number of collieries could do it. But they have not faced it, on the ground that their own difficulties with regard to working costs at present are sufficiently great. So it is going on.

144. I think you told us something about the proximity of iron and coal: I think you said that the question was how to get rid of the iron ore if it were smelted?—Yes.

145. Has it ever been considered whether it would be possible to institute manufactures?—That is another subject which my Department has had to go into during the past year. The disadvantage we have suffered under has been that there has been no Department actually dealing with the development of industries. My Department began as a Mining Department, and mines overshadowed everything else. It has devoted its whole attention to that particular industry. Other industries have been inclined to suffer in consequence. Recently this portfolio has been enlarged, and it is now called the "Mines and Industries," and the intention is to give more consideration to that aspect. But the question of increased industries in the country is, of course, very largely one, in the first instance, of private enterprise, and where private enterprise has not been able to lead

yet, the Government, of course, has not been able to do anything.

146. But is there any reason—having coal and iron and a cheap labour supply—why manufactories could not be started in this country, as in England?—I may say, in regard to that, it is estimated that we have about 44 millions of money invested in industrial concerns and factories in the country, and there is quite a considerable population, particularly at the coast ports, employed in industries at present. These industries are of a very varied character. But the public I do not think, at present, has realised the importance of the way in which they are growing. In the Cape Peninsula during the last six years the probability is—we have no satisfactory figures—that we have double the number of persons employed. Inland, of course, there is the cost of freight and living, but at the same time along the Rand there is a steady growth of industrial production of various classes.

147. Do you make railway engines?—No. With further reference to this question of yours: we have only got to the length of experimenting. Hitherto, we have had refractory ores. The Government made investigations into various electrical and other processes of smelting, and we were finally beaten by Mr. Harbord's report, which was very unfavourable. Then came the news of these two deposits, but until these are opened up and some considerable amount spent on them it will be impossible to say whether that iron ore can be worked profitably or not.

148. You have a certain class of native who is already skilled in working iron, I believe—the Mashona?—Yes.

149. There would appear to be no difficulty in getting suitable labour?—No.

150. As regards this statement presented to the Economic Commission by the Chamber of Mines, was the life of the mines stated to be sixteen years?—I have not got it by me, but I think it said the present rate of production would show a tendency to fall in sixteen years to about one-half, and then more rapidly.

151. Do you know roughly what proportion of the revenue of the Union is obtained from mines?—Direct and indirect?

152. Yes.—I can give you that.

153. Perhaps you can send it?—Yes.*

154. **(Chairman.)** Can you give the total, direct and indirect, from mines?—The indirect is rather a difficult thing to give, because there are all sorts of questions like railway freights, customs, and transfer duty, all of which business is done at Johannesburg. Various people give various estimates—according to their political views sometimes.

155. **(Sir Rider Haggard.)** Railway revenue is a considerable thing, is it not?—Yes, and customs dues.

156. Do you think it is a half?—It is more. I would rather not give the figures off hand.

157. Is it admitted by all authorities that there must come a time when the gold mines give out—say within a half century?—I think people are of opinion that in another half century there will still be mining going on, but what the production for the year will be I do not know.

158. It must come to an end some time, I suppose?—Well, it is difficult to say—so many mining countries continue in a small way.

159. But if that happened, I suppose South Africa would have to fall back on agriculture?—Yes, and, I hope, the development of its coal and iron measures. That is why markets are an important question.

160. **(Mr. Sinclair.)** When you spoke of the need for lower working cost, had you in mind reduction in wages or improvement in methods?—Largely improvement in methods.

161. Not reduction in wages?—No.

162. The tendency is for wages to increase, is it not, rather than to be reduced?—The tendency, I think I am right in saying, for native wages, has been to increase.

163. You gave your proportions as eight to six, of coloured to whites, I believe?—No, 8·6 to one white.

164. **(Chairman.)** Eight millions paid to white labour and 6 millions to coloured?—In wages.

165. **(Mr. Sinclair.)** Is there to any extent employment of a like character common to both the coloured worker and the white worker?—That brings us to the difficult question of the poor white.

166. Can you assist us by saying whether, as a matter of fact, there is like employment common both to coloured and white labour?—There has been a considerable amount—for instance, work like lashing and tramming underground. Contracts have been given to unskilled whites to do work which is ordinarily done by kaffirs. That is, I think, the case to-day less than in the past.

167. Is the tendency to increase the proportion of white workers to black, or is it the other way?—I should say the tendency as shown by the figures has been very stationary. There has been very little change. The figures for the past few years show on the whole a ratio of seven, eight, nine, to one.

168. Is there much employment of the same class at which both white and black work?—No.

169. Is the work that is done by the black worker in mines done on day wages or is it contract rate?—It is day's pay—or monthly pay in fact.

170. Is there contract work—piece work—in the mines to any extent as far as you know?—Yes. A very considerable amount of contract work is done by whites in developing and stoping.

171. But not by blacks?—No. The black is paid all the time on a daily rate or shift rate.

172. Then contract underground work performed by whites does not come into competition with contract work by blacks?—No.

173. They are on a different footing?—Yes.

174. A word as to coal. Is the bulk of it bituminous coal?—Yes.

175. In regard to the destruction of coal, of which you spoke, does the rental paid on coal include a dead rate?—The coal areas have been in most cases leased by the owners of the mining title to the mining companies. The Government is not taking any rent at all, but the owner of the mining title is taking such rent as he has been advised. In some cases, so much an acre, in others a round sum down for so many years. I cannot give you an accurate statement as to what the method has been in the majority of cases.

176. Does that mean that the worker of the coal mines is not the original lessee from the State?—Not generally. Base metals in this country are unlike gold or diamonds. The State does not come in. It only takes a licence fee in Natal, and a small taxation on profits.

177. **(Mr. Garnett.)** You spoke of several classes of work being reserved to white men?—Yes.

178. Is that on account of the highly technical or dangerous or responsible character of the work?—Yes, for instance, blasting.

179. Would you mind mentioning such as are specially reserved?—In mining work, for instance, no coloured man may do any blasting, or charging-up of holes. That has to be done by a competent man, who is defined as a white man in the Transvaal and Free State. A shift boss who takes charge of a shift must also be a white man; those are two main instances.

180. Roughly speaking, then, it is where there is danger to life and limb that the occupations are specifically reserved?—Yes, for the safety of everyone.

181. **(Chairman.)** This Statement 7, presented to the Economic Commission by the Chamber of Mines: I understand the Department of Mines does not agree with its conclusions. Do you propose to prepare any counter estimate?—No, we do not propose to do so, and we do not at the moment feel that we are in a position or anybody is in a position to give an accurate statement. The Minister of Mines, the other day, gave an answer in the House on that very

* *Note.*—See correspondence on the subject printed as Appendix XIII, on p. 116.

point, which I will send to you. It gives the official view.*

* *Note.*—This answer, which was supplied subsequently, was as follows:—

Statement by the Minister of Mines and Industries in the House of Assembly on February 10th, 1914.

The statement of the Chamber of Mines in respect of the life and probable tonnage of ore to be expected from existing mines is based on data furnished by the individual mines to the Mines Department for the purposes of the Mining Taxation Act. Experience has shown that the life of a mine is rather longer than is estimated, and it therefore may be reasonably expected that the existing mines will yield a somewhat larger tonnage than is indicated in the statement of the Chamber.

The Chamber's estimate that the yield from existing mines will fall to one-half in sixteen years may be looked upon as substantially correct, if present working costs remain unaltered, but it may reasonably be expected that new producers will arise by which the balance will at least in part be restored, while any reduction in working costs which may be achieved during the next few years will be reflected in the larger tonnage of lower grade ore which will be rendered available to profitable mining.

Attention is directed to the fact that estimates of this nature are framed on uncertain data and varying conditions, that it is impossible to forecast to what extent these data and conditions will have varied even in ten years, and that therefore it is not prudent to attach undue importance to estimates which attempt to extend our vision so far into the future.

182. **(Sir Jan Langerman.)** It is only in the Transvaal where there is restriction placed on the black and white workers? Yes, and Free State.

183. In the Cape and Natal all labour is common to both white and black?—Yes, all labour is open.

184. If a coloured man is able to do a white man's work he can?—Yes.

185. It is a matter of competition, but usually the coloured man takes a lower wage for the same work? —Yes.

186. And the kaffir gets his food and housing on the mines?—Yes.

187. And a minimum wage? —Yes.

188. If he puts in so many inches or holes, he draws higher pay?—Yes.

189. He is not a regular paid man by day, but it is according to the task he performs?—Yes.

190. Some kaffirs, I know, on mines I had would earn 6*s.* and 8*s.* per day, according to the number of inches or holes. —Yes, those are hammer boys.

191. If the restriction were taken away from the kaffir to do skilled work would not that be an important factor in reducing working costs?—Yes, no doubt.

Dr. Alex. L. du Toit, Geological Surveyor, Cape Province, called and examined.

192. **(Chairman.)** You are Geological Surveyor of the Cape Province?—Yes.

193. Your functions extend beyond the Cape Province to the rest of the Union?—Yes, recently.

194. Would you please make a statement of the points you desire to bring forward?—I have prepared a short statement dealing with the iron ores, and also with copper and coal. *Statement put in as follows:—*

Occurrence of Iron and Copper Ores in the Cape Province.

A. *Iron.*—The only iron ores in the Cape Province known to exist in such quantity that they may be exploited at no very distant date are those associated with the Lower Griqua Town beds in Griqualand West and Bechuanaland.

The Lower Griqua Town beds* are mainly siliceous rocks containing thin layers of magnetite; the siliceous layers are coloured by limonite and hæmatite. Beyond the fact that they are older than the Devonian system nothing is known as to their age.

They extend from the Prieska division northwards to Bechuanaland, a distance of 270 miles, and are limited on the east by the older limestone formation of the Kaap Plateau, and on the west by the younger Matsap Beds. They occur on the surface over an area of several thousands of square miles.

The Lower Griqua Town Beds vary in character, but in general they are highly ferruginous. A specimen of a banded ironstone from Prieska Kopje gave on analysis 42·5 per cent. of metallic iron.† The bodies of ore known at present are concentrations of the iron from these beds along fissures and in circular or elliptical holes in the underlying dolomitic limestones called the Campbell Rand formation. The bodies of ore are breccias of fragments of the banded siliceous rock cemented together by hæmatite and silica; frequently the silica in the fragments has been partly or wholly replaced by hæmatite.

The largest masses of this breccia are the Klip Fontein Hills, which trend northwards for 28 miles near the village of Postmasburg, and the Gamagara Ridge which extends north and south for about 30 miles near Gamagara, in the Kuruman district. These hills rise to various heights up to about 400 feet above the limestone plain (the Maremane anticline). There are also many isolated hills made of similar breccia, which is called the Blink Klip breccia.

* Accounts of the characters and distribution of these beds will be found in the Annual Reports of the Geological Commission of Cape Colony for the years 1905, 1906, 1907, and 1908; they are shown in plan on the Kuruman, Postmasburg, Griqua Town and Marydale sheets of the Geological map of the Cape Province.

† The figures quoted in this report are from analyses made by Mr. J. G. Rose, Government Analyst, Cape Town.

The distribution of the chief masses is shown on the small scale map attached,‡ and incidentally it may be mentioned that this region is about 420 miles from Johannesburg and 600 miles from Port Elizabeth, the nearest sea-port.

The volume of this brecciated material, varying in character from a low-grade ore up to pure hæmatite, is enormous, and there should be no difficulty in obtaining unlimited amounts of ore suitable for smelting.

No prospecting work has yet been done in this formation. Two of the most important outliers are the Blink Klip Kop at Postmasburg and Wolhaars Kop about 10 miles to the south-west.

Analyses of four specimens broken from outcrops of the two long ridges mentioned above gave 38·1, 53·0, 56·3, and 67·4 per cent. of metallic iron respectively.

Another and more important feature is that the ores, as shown by two analyses of hæmatite from Blink Klip Kop and Wolhaars Kop respectively, are practically free from the deleterious elements sulphur and phosphorus, the figures being under 0·05 per cent. in each case, a most valuable quality in view of the large quantities of low-grade phosphoric ores that are mined nowadays. The hæmatite should, therefore, make a high-class pig iron.

The ore bodies, resting as they do upon dolomitic limestone, could be mined at an extremely low cost, but, owing to the absence from the neighbourhood of any coal, the ores would have to be smelted elsewhere.

B. *Copper.*—The copper mining area of Namaqualand is at present under geological examination by Dr. Rogers with a view to a memoir upon the geology of these deposits, which produce the whole of the copper mined in the Cape Province.

The ores occur in small intrusions of basic rock in gneiss.

In the Insizwa Range, Mount Ayliff, near the Natal Border, ores of copper and nickel are found in an eruptive rock (Norite). Although only a limited amount of prospecting work has been carried out, the occurrence is of a very promising nature and deserves further attention and support.

C. *Coal.*—A short account of the coal supplies of the Cape Province appears in the 2nd volume of the "Coal Resources of the World" (published by the International Geological Congress, 1913).

195. Do you propose to read your statement?—No, but I will give an abstract. These iron deposits are not far from Kimberley; about 420 miles from Johannesburg direct and about 600 from Port Elizabeth. There are two belts of these deposits, one 28 miles long and the other about 30 miles. Each of these is a

‡ Not reproduced.

couple of miles in breadth, so the amount of material is almost incalculable. The Government has under consideration the building of a railway into this area. A few analyses have been made of the iron ore and it contains only a trace of either sulphur or phosphorus—under ·05 per cent.

196. **(Mr. Lorimer.)** But that is not good enough for the best steel. If you have anything over ·03 you cannot make the finest steel?—Well, these are the analyses which have been made provisionally for the Commission in order to determine whether they were to be classed as good ores. The amount of material is so enormous that it is useless to quote analyses without having a large number and without examining the whole area in detail, but sufficient has been done to show that the kind of iron is good and the amount of ore considerable, and sufficient to supply the whole of South Africa as well as to export. The amount of iron runs up to as much as 67 per cent.—anything from 40 upwards.

197. Sixty-seven is not the average?—No.

198. It is the maximum?—Yes, of the samples analysed; but the great bulk of the rock runs from 30 to 40 per cent. very probably.

199. After you have removed the overburden?—This haematite formation builds hills about 400 feet in height. The material can be quarried; there is no real mining. It is a question of blasting the rock and taking it out.

200. **(Chairman.)** How far are your nearest coalfields?—The one in the Transvaal is about 400 miles distant.

201. Is there any prospect of one nearer?—No.

202. **(Sir Jan Langerman.)** Indwe?—No, it would not be suitable for smelting purposes

203. **(Mr. Garnett.)** What is the freight?—I believe about one-fifth of a penny per ton mile.

204. **(Chairman.)** For the purpose of export those are impossible considerations?—It would be about 600 miles per rail, and then the freight by sea in addition.

205. **(Mr. Lorimer.)** Have you dolomite?—Yes, thousands of square miles.

As regards the copper in East Griqualand, on the border of Natal, it has not reached the commercial stage yet, but it is in development, and it is a deposit which contains nickel and a small amount of platinum.

206. **(Chairman.)** Are the prospects good?—They are hoping to float a concern in London at the present moment. Government has granted a lease to a syndicate.

207. What other deposits are there that you have geological grounds for thinking workable?—They are nearly all small, such as manganese, limestone, and salt, and these will be covered by Mr. Smyth's report, so I do not think it is necessary for me to say anything.

208. You do not see any large prospect of mining development outside known areas?—No, not in the Cape.

209. And the Union?—I think the State Mining Engineer would be able to speak more accurately.

210. **(Mr. Tatlow.)** Did you say the Government had decided to construct a railway line to these iron deposits?—They have it under consideration. It has been brought up pretty well every session for many years; it is only a question of a few years longer, I dare say.

211. It has not been passed?—No, but about four different surveys have been made from time to time.

212. But if the exportation of this ore is impracticable under present conditions, how is it proposed to utilise the ore?—There will be no difficulty in connecting this point with Kimberley, Warrenton, or any station on the main line near by, and I think the General Manager of Railways will be able to give more reliable information as to special tariffs.

213. Is it expected that the manufacture of iron and steel will be started when that line is made?—Mr. Smyth has given evidence about the steel works at Vereeniging.

214. Do you know if any capitalists are in the field concerning it at present?—No, this is absolutely virgin ground, and it has never been considered.

215. **(Mr. Sinclair.)** Has the State parted with its interests in the mining deposits?—No, I believe that on Crown land the Crown retains the rights to the minerals and issues leases for the purpose of mining.

216. I ask the question in view of what has been said by the last witness, that in many cases the State has parted with the coal areas? Those are private farms.

217. There has been no reservation of ground there? No, where the property has been sold the owner can do what he likes with it.

218. **(Mr. Garnett.)** How far did you say these iron deposits were from the sea?—About 600 miles.

219. So you are at present 80 miles from the nearest transport by rail and 400 from coal?—Yes.

220. And 600, including the 80, from the sea?—Yes.

221. So, assuming the working of these deposits, it would seem likely that you would have to depend rather on the home consumption: that you would be too handicapped with this long distance to get your smelted ore profitably to the open market?—I have no figures at the moment, but it is quite possible that the railway freight could be reduced to cover it. At present they are bringing Transvaal coal to Cape Town—one thousand miles—in competition with Natal bunker coal.

222. **(Sir Jan Langerman.)** You are not referring in any way to the Transvaal?—No.

223. You expect the State Mining Engineer to say something about that?—I have no personal knowledge.

224. You have no knowledge of Middelburg in the Transvaal, where iron and coal are practically side by side?—No.

225. **(Sir Alfred Bateman.)** Are you in communication with the Imperial Institute in London as regards examining your coal and other mineral deposits?—I understand we have done so with manganese, but I should not like to say in this case.

226. The Union Government subscribes to the Institute and they can be of great assistance?—They have assisted us materially in several ways, chiefly in regard to manganese. But in regard to coal, we have had a lot of analyses made in South Africa for different properties, to the number of several hundred, in fact.

227. Do you send home specimens for their mineralogical collection, as products of the Union?—I do not know if the Geological Survey have, but the Mining Department may have.

228. Has any use been made of the Institute's reports?—Yes. Numbers of people interested in those propositions have made use of those figures and found them valuable.

229. **(Mr. Lorimer.)** I see you mention here that there has been a discovery of copper and nickel in rock form?—Yes.

230. Has that been analysed?—Yes, a number of analyses have been made, and at present a report has been written on it—the engineer being at present in London.

231. What percentage of nickel is there in the rock?—About 3 per cent.

232. And how much copper?—About 2½ per cent.

233. Of course, it is possible to work copper of 2½ per cent. and make it pay, and the addition of the nickel would make it a valuable deposit. What has been done; has there been any smelting?—Not yet.

234. In regard to copper, you say the mining area in Namaqualand is at present under examination with a view to reporting on the geology of these deposits, &c.; but apart from that, is the extent of the copper area well known?—No. The copper-bearing rock occurs in veins in the granite, and it is the location of this rock, both at the surface and underground, that is so troublesome.

235. And all the copper extracted from the Cape and Namaqualand mines is from a deposit of that formation?—Yes.

236. Invariably?—Yes.

237. Has the output been well maintained in recent years?—I believe so.

238. Is there anything known as to the extent of the deposits?—No, it is chiefly with that object that the geological survey has been carried out.

239. I mean the area?—Yes, the area is more or less known.

240. Can you refer us to any publication of your own in which the extent of this deposit is set out?—Not just now.

241. In the meantime it is not possible for us to see in the report, for instance, that these deposits in the

two districts will yield probably so many thousands or hundreds of thousands of tons of copper ore?—No.

242. With respect to this iron ore, you must not think that this analysis represents pure hæmatite. You say the figures are ·05. To be really pure, that is, practically free from adulterant elements, it would be more likely ·005?—Well, the analyst reported that as a trace.

243. Two analyses of a great area like this might mean anything. Are you having a fuller and more careful examination made?—It would be done if thought justifiable.

244. If we are to report on this, we should like to know more than that two analyses merely have been made?—I realise that. The analysis was done specially with the object of finding out whether the deposits were phosphoric or sulphurous.

245. In order to justify us in saying anything about it, you require to make these analyses over dozens of places?—Yes.

Kimberley, Thursday, 19th March, 1914.

Mr. Irvine Rowell Grimmer, Assistant General Manager of De Beers Consolidated Mines, called and examined.

246. **(Chairman.)** You are the Assistant General Manager of De Beers Consolidated Mines?—Yes.

247-8. **(Mr. Lorimer.)** As you are aware, Mr. Grimmer, I have been here a day or two, and the Chairman thinks it desirable that some of the information which I have gathered should appear in the evidence. I propose to ask you about your own Company, its relation to other Companies, and its relation to the diamond industry generally. The De Beers Company in its present form has existed since 1888, I believe?—Yes.

249. At that date it absorbed by purchase all the other mining companies in Kimberley, and created the present De Beers Consolidated Company?—Yes.

250. The price which was paid to the liquidators of those other companies was, I think, 5,338,650*l.*?—Yes, that was for the Kimberley Mine only, that is only one mine.

251. Have you any knowledge of what was the total purchase money?—No; but perhaps in round figures it would be about 8,000,000*l.*

252. I have here a copy of your Report and Balance Sheet for the last year, and from that I find your capital is 4,500,000*l.* I rather wondered how you contrived to pay for these mines out of the capital of 4,500,000*l.* But I understand you had at that time, and for some time afterwards, debentures of something like 5,000,000*l.*?—About 4,500,000*l.*

253. And those have since been redeemed?—Yes, out of profits.

254. Well, in addition to redeeming those debentures out of profits, you have paid about 30,000,000*l.* in dividends to shareholders?—Yes, I think there is a statement showing that somewhere—I have not the figure in my mind.

255. And before declaring these dividends you paid to the Government 10 per cent. as a Government tax on your profits?—That is of late years. It has not always been the case.

256. That amounted last year to something like 482,000*l.*?—It amounted to 426,500*l.*

257. And the market value of your shares at present is something like 30,000,000*l.*, is it not?—Yes.

258. You have five mines in Kimberley, and one in the Orange Free State which is not being worked?—Yes.

259. And you have interests and options in other parts of South Africa?—Yes.

260. For working your mines you employ a staff of about 2,500 white men and 16,000 coloured men?—That is about right. Instead of coloured I prefer to say natives, the word "coloured" in this country has a particular significance; we speak of white men and natives.

261. Of course, when I speak of coloured I include everyone who is not white?—Yes.

262. The production of these mines which you are working amounts to about 20,000*l.* a day?—A little under that just at the moment.

263. That is a fair average?—Yes, in round figures.

264. Your sales last year amounted to 6,297,782*l.*?—I do not know whether those are the sales only or whether those figures include the stock, I think they include unsold diamonds in hand.

265. I do not know how you state it, but it is here shown as the Diamond Account?—It represents the sales for the year less the cost of production of the diamonds on hand at the beginning of the year, but plus the cost of production of the diamonds unsold at the end of the year.

266. Well, now, I have here a book published a week or two ago by Mr. Wagner, which I suppose you would say may be relied upon. I understand the author is a man of repute and that his statements may be accepted?—I have not seen his book, I have not read it yet; but Mr. Wagner is a careful man and I have no doubt any information he gives can be relied upon.

267. I call attention to it because of the total production of diamonds throughout the world in 1912 he says that 95·1 per cent. was produced in South Africa?—I think that is about right.

268. And of all the diamonds produced in the Union of South Africa, amounting in value to 10,061,489*l.*, more than half is produced by De Beers?—Yes.

269. The value of De Beers production he gives as 5,553,865*l.*?—Yes.

270. And of the whole world's production that amounts to 46·1 per cent.?—Yes.

271. There have been difficulties, I understand, in respect to preventing over-production. There is a constant risk that some of the mines will produce their whole maximum output and flood the market and so reduce prices seriously. It has always been the policy of the De Beers Company, I understand, to restrict production to an amount which the market could absorb without unduly depressing prices?—Yes.

272. And you do not always find the other companies so ready to respond to that idea as you are yourselves?—That is so.

273. You sell your diamonds, I believe, to the London Diamond Mining Syndicate?—Yes.

274. And they find a market for your production in America to the extent of 75 per cent. of the whole?—Principally in America. I daresay it is 75 per cent.

275. Now the production of German South West Africa is becoming a conspicuous feature of diamond mining in South Africa?—Yes, a great feature in regard to certain classes of stones.

276. Their diamonds differ from yours in the size, which is very small but the quality is very fine?—Yes.

277. And they are found under conditions which do not prevail anywhere else in South Africa, or indeed in the world?—Yes.

278. They are found in the sand along a seashore that is treeless and practically a desert, is that so?—Yes.

279. And they also belong to separate companies, but the German Government takes a very considerable tax upon their output?—Yes, and I think they exercise a very great control over them.

280. This book shows that, while last year, or rather in 1912, the German South-West African production was 11·7 per cent., in 1913 it was 19·9 per cent. or practically 20 per cent. Do you know, without going into details, if the production is increasing in value so rapidly as that?—I do not know. Their production may have remained stationary and the rest of the world's production may have been reduced a bit; I have not gone into the figures.

281. In 1912 the German production was 1,408,738*l.*, and in 1913 it was 2,953,500*l.*?—I am not conversant with the figures.

282. Apart from that, they are not very serious competitors, I understand, because the class of diamonds they produce is so different from yours, and they find a different market?—They are only competitors with similar classes of goods produced by us.

283. So far as can be gathered from what is said and written, their production is not likely to be so permanent as yours?—I would not like to hazard any opinion on that point; I have no personal knowledge.

284. I suggest that on the ground that they are picking them out of the sand, the accumulation of ages, washed in, I suppose, from a rock under the sea, and it is not at all likely that the washing in will keep pace with the removal?—I do not know if there is any accepted theory as to the origin of these diamonds, and I prefer not to express any opinion.

285. You will find some interesting theories propounded on the point, and the one which appears to present the least objection is that the diamonds are washed in by sea erosion from volcanic rocks under the sea. Having been round your mines, I should like to say that it is quite obvious there is no expense spared to make the equipment as complete and as safe as possible, both above and below ground, and I suppose that is the policy you proceed on?—Yes.

286. And then I have talked with some of your directors and officials about the prospects of the Company, and I find that everyone entertains a very confident belief that the life of the mines will be prolonged for many years to come. I suppose that is the conclusion you have arrived at with all the data you possess and as the result of probing and drilling and boring. You believe that the De Beers Company has a long life and a prosperous future in front of it?—There is no doubt as to the length of the life of the mines.

287. **(Chairman.)** You cannot say what the life is likely to be?—No, I cannot, but I should say 50 years at least, and probably a great deal longer.

288. **(Mr. Tatlow.)** When you say that 50 years is the probable life of the mines, do you mean at something like the present rate of production or a gradually diminishing production?—At the present rate.

289. After 50 years would there be a gradually diminishing production?—I would not like to say that.

290. But it will not end all of a sudden?—No.

291. It will be a gradual reduction?—Yes.

292. Do you look upon 50 years as the actual end of mining?—No, I cannot say that certainly, but I can state with confidence that we have a life of 50 years, and I can hazard an estimate that we have a life of a good many more years after that.

293. Do you find that the demand for diamonds is constantly increasing throughout the world?—It has up to now.

294. Do you think it will be a constantly increasing demand owing to the increase of the world's wealth?—If the wealth of the world grows I have no doubt that the demand will also grow.

295. Diamonds will always be in demand?—I should think so.

296. **(Mr. Lorimer.)** Am I correct in saying that from the first discovery of diamonds until now the value of production in South Africa has been about 200,000,000*l.* sterling?—Yes, I should say that would be about the correct figure.

297. **(Chairman.)** I want you to tell the Commission something about your system of recruiting both white and native labour. Taking white labour first, what is the average duration of the stay of your white miners here?—I cannot say, I have no details as to that, but I can say in general terms that I believe we have from 150 to 200 men in our employ who have been with us probably anything up to 20 or 30 years, and some of them even more. The amalgamation was only in 1888, and the De Beers Mining Company, which was the parent Company of the De Beers Consolidated Mines, employed these men before the amalgamation; therefore, when I spoke of 30 years I am talking of men who were in the service of the various companies before that date. We have also a great many men who have been with us 10 and 15 years. The general position in regard to the white employees is that if a man gets a billet with the Company, he sticks to it. We have no very large wastage, it is comparatively small; I have no figures. We have a great many men who have been many years in the service of the company. We have fathers and sons and, I daresay, in a good many cases, grandsons.

298. The case of men moving away because they are dissatisfied, or because they want a change, hardly occurs here I understand?—Well, not in any undue proportion, and probably less than in the case of a good many other industries in the country.

299. In the course of the year, what percentage of your white staff would you lose?—It is very difficult to say; in some of our weekly returns you may find that two or three men have left and sometimes none at all. If you said about 100 men would leave in a year and be replaced out of 2,500 that would probably be about the mark; about 5 per cent., it is quite insignificant.

300. Do you have a large number of demands for employment which you are not able to satisfy?—At times we have an abnormal number of demands; if there is a depression in any part of the country they are here and expect to get work, and at times we have a great crowd of men looking for work whom we have not been able to employ.

301. Is that your normal condition to have a large number of men who want to be employed and for whom there is no room?—No, not a large number. I daresay we should have six or ten applications every day, and some of those are repeated applications from the same men.

302. Generally speaking, what is your system of payment; is it time payment with a bonus?—The bonus is only paid in certain cases, such as for shaft sinking and the like; generally speaking, we simply pay for the time.

303. You pay a flat rate?—Yes.

304. And that has replaced the previous system, which was largely contract?—Contracts existed only in the underground work.

305. But what has been the effect of replacing contracts with time payment?—Well, I have no definite figures, but we are well satisfied with the results of abolishing the contract system and reverting to time payment.

306. You find the result better?—Yes.

307. Are the men more contented?—They are perfectly contented. Under the contract system a good many men earned large money and others earned less, whereas to-day the average wage would be a little better than in the past.

308. So far as the men are concerned it has equalised their wages to some extent?—Yes.

309. The highest wage is less, and the lowest wage is higher, than formerly?—Yes.

310. What can you tell us regarding the health of the white miners; have you any returns showing the death-rate or the sickness-rate?—I was only asked for that in regard to the natives; I have no record in regard to white men. I have the figures in regard to the natives and I can get the other figures for you from the Benefit Society, if you desire them.

311. Yes, it would be of interest?—I will do so, but it is not a high death-rate.*

312. Do you know if it is a considerably lower death-rate than on the Rand?—I do not know much about the death-rate of whites on the Rand but I should say we are not abnormal; I would rather, however, give you the exact figures and then you can see for yourself.

313. There has been a discussion in other places in regard to the right of dismissal of white employés. Who has the right of dismissal here?—The various departmental managers with regard to men working under them, but, of course, every man has the right of appeal to the Head Office, to the General Manager, who is quite accessible to every man in the Company's service, whatever position he may hold.

314. As a matter of fact this right of dismissal is rarely exercised?—Only in cases of necessity.

315. Numerically, is it very frequent or is it rare?—It is comparatively rare.

316. Turning now to the question of the natives, your compound system here is, I presume, very strict, more so than anywhere else, is it not; the natives are more segregated from the ordinary population than occurs elsewhere?—Yes; they are completely cut off from the ordinary population during the working of their contract.

317. And they are completely severed from their families I presume?—Yes, of course, except that their families are allowed to see them on pay days to get money for their support, but that is under supervision.

318. What is the time during which they are thus segregated, how many months?—Not more than six months, and, in a good many cases, only four months. After their contract is concluded they go out for a week or two, and come back again in many cases; they keep on returning to the compounds.

319. So, then, with the natives as well as the whites you have a large number who have been here on and off for the last fifteen years?- Yes, large numbers of natives; we have boys who have been with us almost from the inception.

320. And you find that your boys return?—Yes.

321. What is the determining factor which brings them back. Is it the comparatively high rate of your wages or the fact that their crops have failed, or that they have no temptation to remain in their kraals?—I suppose it is the inducement of the wages, in most cases. The wages represent a great inducement to the native. I do not know how our wages compare with the Rand, but I do not think that there is very much difference, if you take into account the cost of rations. We pay a fair wage, and in addition there is a little of the gambling element about it. We pay very liberally for any diamonds which the natives may pick up, and do not attempt to steal. We pay 5*s*. a carat for diamonds, irrespective of their quality and 2½ per cent. on their value in addition.

322. What is the total amount of bonuses which goes to the natives on that basis?- I can get you those figures; I daresay it would amount to probably 200*l*. a week.†

323. What is your average daily rate of wage to natives?—It is about 3*s*. 4*d*. or 3*s*. 5*d*. That is the average.

324. With a minimum of what?—2*s*. 6*d*.

325. And the native has to pay for his food out of that I understand?—We pay their wages in cash, in full, and they can buy what they want at the store in the compound; we do not ration them

326. What is your view of the comparative merits of that system as contrasted with the ration system?—Well, as a matter of fact, we do not need to have any views. The law compels us to pay them in cash.

327. But, outside compulsion, which do you think is the better system?—We think that ours is the better system because the native likes to have his money to buy what he likes with it. If you ration him you have a set scale of diet which does not suit all natives; they have their tastes like other people, and I think they prefer to buy what they want. A man may want to buy meat, whereas if we ration them he would perhaps get rice or mealie pap or something of that sort. We think he much prefers to feed himself.

328. What do you estimate the average daily cost of the native's food to him?—About 1*s*. 2*d*. per day for food and clothing, that is about the average they spend in the stores.

329. Contrasted with that, what is the cost of rationing them on the Rand?—I cannot tell you.

330 These stores that the native buys are sold to him by whom?—By the Company.

331. At what price?—First of all I may explain that all the stores sold to these boys in the compounds is bought in the town of Kimberley, every single pennyworth; we do not even go to the Cape Colony for any of our supplies, so the merchants in town have the full benefit of the trade in the compounds. When they were first established we sold the goods to the boys at very low rates, and then we had a deputation of merchants who said to us that when the boys came out of the compounds and bought goods from them they accused the merchants of trying to fleece them because they said that their prices were higher than the prices charged in the compounds. We agreed to meet them in this matter and decided not to sell at such cheap rates. We now sell the goods at the local town rates. The next outcry was that we were making enormous profits, so we were in another difficulty; however, what we do is to sell the goods at about the same rate as charged in town. Sometimes, in the case of meat, to encourage the boys to feed themselves well, we have sold it below the town prices; this was with the idea of getting them to eat meat as much as possible and so keep themselves fit.

332. You find the more meat they eat the more fit they are?—I would not like to say that, but the native is fond of meat.

333. Your answer rather implied that they worked better on meat than on any other diet?—Not necessarily; if they did not buy the meat it does not follow that they would have bought anything else.

334. Do you have any difficulty about preventing the natives from obtaining liquor?—It is impossible for them to obtain it; there are no means of getting it in; they have no communication with anybody outside.

335. Is that a considerable factor in their good work and contentment?—Yes.

336. What difficulties do you have to prevent theft by your employés? Does theft exist to a considerable extent notwithstanding all your precautions?—Undoubtedly.

337. Can you tell us what means you adopt to restrict it?—First of all our mining area and com-

* *Note.*—The following statement was subsequently supplied by the witness:—

De Beers Consolidated Mines, Limited, Benefit Society.

Membership and Deaths—10 years ended 31st March 1913 (Whites).

Year ended 31st March.	Membership.	Deaths.				
		Natural Causes.	Fatal Accidents at work.	Fatal Accidents not at work.	Suicides.	Total.
1904	2,228	19	4	0	1	24
1905	2,613	14	3	0	2	19
1906	2,941	19	7	1	1	28
1907	3,728	23	7	0	1	31
1908	3,291	16	8	0	1	25
1909	1,981	11	1	0	0	12
1910	2,049	9	1	1	0	11
1911	2,455	9	2	0	1	12
1912	2,557	26	2	1	0	29
1913	2,493	11	3	2	0	16
Average 2,633		Total 157	38	5	7	207
Death rate per 1,000 per annum		6·0	1·4	·2	·2	7·8

† *Note.*—The witness subsequently supplied the following figures:—

De Beers Consolidated Mines, Limited.

Percentages paid during the 12 months ending 30th June, 1913, on diamonds picked up in the course of work.

White	...	£3,047 14 9
Native	...	10,945 14 6
Convicts	...	691 12 6
		£14,685 1 9

pounds and depositing floors are enclosed with wire fences, and in the case of the Dutoitspan Mine, where we get most of our big stones, we have a very elaborate system of barbed wire entanglements with electrical contrivances to ring an alarm in case of tampering. In regard to the natives, they are searched before they leave the service of the company. In regard to the white men there is no system of searching, we simply trust them.

338. Your white employés circulate inside and outside the mine freely?—Yes.

339. And you trust to the good rate of pay and to their sense of honesty?—Yes.

340. How many natives does a white man manage?—Well, we have 2,500 white men and 16,000 natives; if you take those numbers you will get a fair average, although all those white men are not employed in guarding natives; there are mechanics in the work shops for instance. You may say there are 8 or 10 natives to every white man.

341. How many are there underground?—Perhaps a little more, but the Mining Regulations restrict the number. It is competent for a mining inspector to say that so and so has too many boys under him, and in that case we have to reduce the number.

342. Is that fixed by law?—The numbers are not fixed by law, it is subject to safe working.

343. Is the proportion altering in any way?—No, I do not think so, I think we have gone on for years just the same.

344. It remains constant?—Yes, there has been no deliberate attempt to alter the proportions.

345. In respect to recruiting, what means do you adopt to recruit: do you incur a large expenditure for this purpose?—No, practically nothing at all; one year we did spend 1,300*l*., but we had practically no recruiting whatever in the ordinary sense. We have three men in the whole country, one in Transkei he practically does nothing at all one in Basutoland, and one in the Bechuanaland Protectorate. Their duties are to collect the natives into gangs and look after them and ration them until they are put on the train.

346. Do you advance their railway fares?—Yes, and we recover from the natives out of their pay. If the boy contracts for four months he has to refund his fare, but if he contracts for six months we will bear the cost.

347. Do you advance anything to his family?—No, we only advance 1*l*. per head for the hut tax, which the Government insists upon their paying. We make no advances in the way of loans.

348. There is no inducement to them to be recruited, in the sense of advances?—To all intents and purposes every boy we get comes to the mine voluntarily.

349. Therefore, comparing your system to the one at Johannesburg, there is a large saving. I think in Johannesburg the cost of recruiting is something like 20 per cent. of the amount of native wages?—I would not like to say; I have no figures.

350. The Economic Commission reported that the cost was something between 20 per cent. and 25 per cent. of the total cost of native labour?—That may be.

351. Do the natives remit home during their four or six months' stay a considerable proportion of their earnings?—Yes, a very considerable amount is remitted through the Post Office

352. Does the Company give facilities for that?—Yes, the Post Office people do it, but we help them in every way.

353. Can you tell the Commission what proportion of the total wages earned by the natives is thus remitted home?—The total amounted to 91,218*l*. in 1913.

354. In regard to apprentices, I think you said just now that a large proportion of your white employees now are the sons of a previous generation of white employees?—Yes.

355. Do you have a large number of apprentices learning a trade or learning the mining business?—Yes, we have altogether somewhere about 350 lads, including such boys as points boys and loco. boys, but I cannot tell you exactly how many are apprenticed to trades, but there is a very considerable number.

356. What facilities do you afford for apprentices?—They get every opportunity of learning a trade thoroughly under competent men, and we have technical classes for them at night.

357. Are those paid for by the Company?—Yes, and we pay the apprentices a wage also ranging up to 2*l*. 2*s*. a week for the last year.

358. What is the period of apprenticeship?—They are taken on between 14 and 16 and serve up to 21 years of age. Before the boy is taken on he must have passed the 7th standard at school, otherwise his application is not considered. If he is over 16 and has passed his matriculation or some other higher standard than the 7th standard we may consider him up to 17, but no boy is taken on over 17, and therefore a boy will have at least four years' training, and the bulk of them have more than that.

359. Do you think that the facilities which you give for apprenticeship are advantageous to your economic working?—Yes, in many cases it is. It assists us also indirectly, inasmuch as we have a good deal of contentment. There is provision made for boys belonging to our people, and when the apprenticeship is finished we send the boys away so as to make room for others, they gain experience elsewhere and in time many of them come back, and we generally give them preference to others, providing, of course, they have shown a desire to help themselves during apprenticeship. In the first instance we send them away to get experience elsewhere.

360. But, on the whole, these apprentices whom you have assisted to train make a return in the sense of good work later on?—Yes, of course, we do get some work out of them during the apprenticeship, such as rough painting, but I do not know if we get full value for the wages paid.

361. You get your full value later on?—Yes, and in indirect ways.

362. We know the amount of direct taxation which the De Beers Company pays to the revenue of the country, but have you formed, or has anybody formed, an estimate of the total contribution to the revenue of the country, direct and indirect, which your Company makes?—Yes, I have a statement here which gives the total, including the Profits Tax, and the figure amounts to 776,000*l*. a year.

363. What does that include? Does it include your contribution to railway charges and rates and customs?—Yes, the railway rates on the stores consumed represents a considerable sum, that has nothing to do with the passenger fares of our employees. There is the Profits Tax. In 1912 we paid 347,500*l*., last year we paid 426,500*l*. That is a direct tax. Then we also pay to the Government quit rents on mining properties, 13,000*l*., Joint Stock Companies Licences, 3,400*l*., Royalty on diamonds from the Kimberley Mine extension, 2,000*l*. I may mention that the mines were originally surveyed and afterwards extended beyond those boundaries, and we have to pay a royalty of 2½ per cent. on the value of all diamonds found on the extensions of De Beers and Kimberley Mines, which averages about 2,000*l*. a year. Then we hire from the Government anything between 1,200 and 1,500 convicts. We relieve the Government of the cost of these men, and in addition we pay to the Government about 3,500*l*. a year in cash, but taking the amount of relief to the Government as regards the keep of these convicts and the amount of cash which we pay, it represents a sum altogether of, say, 53,100*l*., or in round figures 50,000*l*. I think it is a fair thing to take into account the cost of keeping these convicts, which is saved to the Government; they cost us a great deal more than that. They cost us about 50*l*. a year each. Then we pay in registration fees for labour contracts, &c., 20,000*l*. a year. For railage we pay direct to the Government on goods imported 76,800*l*., and we estimate that in an indirect way we pay railage to the amount of 166,700*l*. on goods that we buy from merchants here. In custom duties we pay direct 3,500*l*., and we estimate the indirect payment through merchants amounts to 11,000*l*., altogether making a grand total of 776,300*l*.

364. I suppose it might fairly be contended that even outside that, the taxes paid by the natives indirectly from money you pay to them in wages, proceeds indirectly from you—in other words it creates a considerable amount of revenue for the Government which would not otherwise exist?—Yes.

365. That is your view?—I mean to say if the natives did not make the money here or elsewhere there would be nothing for the Government to get any revenue or commissions on.

366. Can you tell us anything further regarding the co-operation which exists or which might exist with other diamond producers?—We have no arrangement with anybody.

367. You, on the present basis, supply about sixty per cent. of the total production of diamonds from South Africa?—Of the total value—not weight.

368. Yes, we will adhere to values. And the Premier Mine supplies——?—I would not like to speak for them; I have not worked these figures out. I do not know that we can do that except by taking their reports.

369. You have no figures in your head of the proportions?—No.

370. Can you say whether the respective proportions are increasing or diminishing, or whether your respective proportion is increasing or diminishing?—I should say ours must be diminishing. Every new field that is discovered must affect the proportion contributed by us to the total.

371. And I suppose you would say that the distinction between you and the others is that they are working full rate, and you are throttling down?—I won't say that, but we have made it a part of our policy to restrict our production. We could increase our production without erecting extra machinery by 100 per cent., and by erecting other machinery we could do four times what we are doing to-day.

372. But without erecting additional machinery you have now the plant necessary to double your annual production?—Yes, without difficulty.

373. Would that lower the average level of your production, or would you maintain the quality about where it is?—No, the quality would remain where it is.

374. It would not be going from richer to poorer areas in the mine?—No. The mines vary in value, but taking it all over, we get a very fair average.

375. And doubling your production, with your present plant, you could still maintain your present quality?—Yes.

376. And at your present rate of production, you estimate you have still fifty years of life before you?—Yes.

377. That is not ore in sight?—It is practically in sight.

378. Strictly speaking, in sight?—We can demonstrate that we have the ore at present rates to last us fifty years, and then we have no reason to think that we cannot go on for another fifty years perhaps.

379. Using the term in the mining sense, you have, you say, fifty years' production in sight?—I would not say we have developed all that, but we can take our experience in the Kimberley and De Beers mines as a guide. The Kimberley Mine is at present 3,500 feet deep, and the De Beers 2,500 feet. And we have three other mines bigger than either of those, and not one of them is over 1,000 feet in depth, and working on the assumption that the occurrences in these mines are similar to those in the Kimberley and De Beers Mines, we may say with confidence that we have fifty years' life at the present rate.

380. What is your present deepest depth of working?—3,520 feet.

381. What depth do you suppose is possible?—I could not say, but a good many mines in the world are deeper than 3,520 feet and there has been no very great increase in heat down there.

382. What is the increase of heat per 100 feet?—The temperature increases approximately 1 degree in every 180 feet of depth. The warmest mine is Kimberley Mine. The approximate average temperature at this mine is between 87–90 degrees. Some rock and water temperatures, taken on the 3,520 foot level at Kimberley Mine, were 96 degrees and 98 degrees respectively. The rock temperature will vary considerably with the seasons and also with the amount of ventilation.

383. Is it assumed that these deposits go down to an indefinite depth?—As far as we know, there is no indication whatever of any bottom to the mines.

384. So the limit of working will not be the shute or pipe pinching out, but the heat will become too great for men to work, or the cost of haulage and so on will be too heavy to make it a payable proposition?—Yes, those are the factors.

385. Are there any others?—No; just the question of depth of working for a human being and the question of hoisting.

386. So, if you assume that the heat does not become excessive and the cost of haulage is not too great, there is no reason why you may not work down to 10,000 feet?—We have no reason to give why the mines should not go down to 20,000 feet or even 50,000 feet.

387. In your deeper workings, do you have to adopt any special means for ventilation or cooling?—No, not more than at ordinary depths. We have ventilating shafts—up cast and down cast, and we occasionally have to instal a fan to improve the movement of the air, but we have no difficulties of any kind.

388. It would be of interest if you could give the Commission a little more detail in the form of a written statement about what you said just now—that certain workings have gone down 1,000 feet and the possibility of their going down to the same level as the deepest?—Perhaps if I gave an extract from the speech made by our chairman at one of our annual meetings, dealing with this question, it would probably supply what you want.*

389. Yes. What do you say regarding the probability of other diamond deposits being found in South Africa?—I do not know. It is very difficult to say. I can give you an instance of what happened here to my knowledge. The principal four mines here were discovered in 1870, and a good deal of prospecting went on round the country for years afterwards in the neighbourhood of these mines, and it was not until twenty years afterwards that another mine was discovered within two miles of one of these four. And even then the discovery was only made through a mere accident. A prospector saw some indications of diamondiferous ground thrown out by an ant bear, and he followed it up, with the result that the Wesselton Mine was discovered. That is within two miles of the other mines which had been working for twenty years. So although there may be many rich mines in the country it does not follow that they are going to be found.

390. To what do you attribute the greater stability of underground labour here, both white and coloured, as compared with labour in other places—I mean the men staying longer, and returning?—I would not like to compare it with other places. But I take it that the policy we have pursued all these years has had some effect in that direction. From the General Managers downwards, and also as regards the directors and everyone else, the policy has always been to be fair and just to the men and pay good wages. The industry demands that we should pay good wages, because there is a great deal of temptation, and fair dealing should be given to the men. If any man or any body of men have grievances we encourage them to come and lay them before us and we will discuss them, and use our endeavours to remove them if they are legitimate grievances. We are willing to argue the matter out with the men, and if we find that they have a fair case, we set

* *Note.*—The following is the extract referred to:—

The original surface area of De Beers Mine was 622 claims, and of Kimberley Mine 470, a total for the two mines of 1,092 claims. The lowest working level of the former mine is 2,040 feet, and of the latter 2,520 feet. These mines have been working constantly for over 36 years, and have still a long life before them. The surface areas of Wesselton, Bultfontein, and Dutoitspan are, respectively, 1,162, 1,753, and 1,777 claims, a total area of 4,692 claims, or about 4½ times as large as Kimberley and De Beers combined. Although an enormous amount of work has been done in these three mines by individual diggers and companies in years gone by, there is in sight over 50 million loads of blue ground above the 500 ft., 600 ft., and 750 ft. levels.

ourselves to remove the grievances. On the other hand, if we think the grievances are not justified we generally manage to convince them of that, and they go away satisfied. Whether a man be a tally boy or miner or anything else, he is free to come to the office and see the General Manager or the Chairman of the Company and put his case before them, and we will make all proper investigations into it.

391. Does the fact that you are alone and isolated as compared with mines that have other mines alongside make any difference in your favour or against you?—I should not like to say, but I should think that, as the whole of the mines are under one management, it has some effect. There is no temptation to shift about from mine to mine, nor is there any inducement held out by one mine manager to draw away a good man, and such like cases, which occur in other mining centres.

392. On the other hand, I suppose it may be said that a large market is usually cheaper than a small one?—I suppose that is so. Because where there is a large market, naturally people would rather go there, because there would be more scope or opportunity than in a confined market.

393. In other things the large market is usually cheaper?—Yes.

394. It might militate either for you or against you?—Yes.

395. **(Mr. Campbell.)** In reply to the Chairman, you said, I think, that there was no arrangement between De Beers and any other mines. But has any arrangement been contemplated, or is any new contemplated?—Not to my knowledge. I know of no idea of any kind. But I daresay if any groups care to approach each other they would listen to proposals. But I do not know that even any preliminary step has been taken.

396. Could you say, in regard to the Premier Mine, which I suppose is your largest competitor, whether any restrictive policy for the sale of diamonds is carried out?—I should think you had better ask them that question. It is hardly fair to ask me to express an opinion in regard to other mines. I can only say what our own policy is.

397. Assuming that there is no restrictive policy carried out by the Premier Mine, has that in any way affected the diamond market in the past?—I think it must naturally follow that if any producer produces an unlimited quantity of diamonds and produces together with other people more than the market requires, that must affect the market.

398. Would you object to say what is the cause of the difference in price between the Premier diamonds and the De Beers diamonds?—No, it is a matter of quality.

399. Their price being about half, roughly, of yours?—Yes, but I do not think it is quite half of our average all round.

400. Of course, you have had practical control of the diamond market since 1888, and have had a fair experience of the working of the restrictive policy. You have had fluctuations in the demand for diamonds during that time, I suppose?—Yes.

401. Could you say from what those fluctuations arise?—Well, a good many years back, in the early days, before the amalgamation, and before there was control of the market, and before the diggers had a sufficient capital to work on, a digger had to sell practically from hand to mouth in order to be able to pay his wages on Saturday night, and he had to take what he could get. A digger may have had 100 carats, and have to sell those to a buyer for £100, whereas his neighbour, who had more capital and could afford to hold out, might get £150 for the same quality and quantity. So there was no control of the output and no control of the prices.

402. I am speaking of the market since you have had control of it during 25 years: there must have been periodical fluctuations arising from one or more causes: is it fashion?—No. It is just the spending power of the consumers—the amount of money available for the purchase of stones.

403. The diamond being looked at from the point of view purely of a luxury?—Yes.

404. But it is as a matter of fact an investment, is it not?—I believe that a great many Americans invest in diamonds rather than take a fixed deposit at a bank, with the idea that they can always realise on them whenever they want cash.

405. Have those fluctuations been very violent?—No. Except that about five or six years ago, in 1907 and 1908, there was a very sudden drop in prices of diamonds, and that lasted for a considerable time, and then recovered almost as suddenly.

406. Due to what?—To the state of the trade in America.

407. In the event of a world-wide depression, the market value of the mine would diminish considerably?—I have no doubt.

408. What is the ratio of cost of production to market value of the diamonds?—One can only say that in regard to any particular year. Cost of production is fairly steady, but the ratio would vary with the selling price.

409. You cannot give that figure?—I cannot say exactly, but you could work it out for the last year from the balance sheet you have here, and from the figures you have there in the profit and loss account. Those figures would enable you to get at what you want, I think.

410. You could not say, roughly, what is the percentage of cost of production as compared with the market value?—No. I should just in a rough way say that the cost of production is about one-third of the value. That is to say, the value is about three times the cost of production. You will probably find that is somewhere in the neighbourhood of it.

411. You have a very big margin?—Yes.

412. We have heard it said that, on account of the peculiar taxing arrangements now existing in respect of the new finds of diamonds, this has a retarding effect on the industry. I understand that the Union Government, in regard to new diamond finds, exacts a rate of taxation that is in force on the Premier Mine, for instance, is that not so? Or rather that 60 per cent. of the new diamond field is reserved by the Government to be dealt with as it pleases?—No, that is not quite right. In the Transvaal the Government is a partner to the extent of 60 per cent. It is not taxation at all in the proper sense. In the Free State the Government share is 40 and the owners' share is 60 per cent., and in this Colony it is 50 and 50.

413. Those would be the rates on discoveries of new fields?—Yes.

414. It has been suggested that pipes have been discovered, but the existence of them is concealed, for the time being, in the hope that this heavy contribution to the State will be altered? Do you think there is anything in that?—No, I know of no such case.

415. As to the life of the mine, I suppose you can judge much more accurately of the life of a diamond mine than of an average mine such as gold, silver, or copper, because of the pipe formation, which gives you a fairly good guide as to the volume of the lode?—Yes, generally speaking.

416. You could give a much more certain estimate in respect to your mine?—I should imagine so.

417. In regard to the efficiency of native labour for mining, have you any data at all showing what is the difference, if any, in the relative efficieney of the white miner for the removal of ordinary material and the native miner?—You are assuming that the white miner does the work himself?

418. Yes, I am thinking of the possibility of your being reduced to white labour.—No, because we have never had such a condition of affairs. White labour here is simply supervising.

419. From what source do you derive your men, specially? Is it in the Union?—Practically the whole of it from British South Africa.

420. That includes Rhodesia and Bechuanaland?—Not from Rhodesia. But Bechuanaland, Basutoland, and the Transkeian territories in the Cape Colony. Practically nothing from Portuguese territories.

421. Is there any objection to labour being had from Portuguese territories?—We do not want it; we get all we want as it is.

422. Has there been any objection raised to getting labour from those territories?—From the point of view of quality I do not think there is any objection. Probably they would be just as good.

423. In regard to the supply of stores to the compounds, you said that at one time the Company supplied them practically at cost price, and since then they have supplied the goods at town prices, which apparently represent a different figure. And judging from what you say, the Company has no wish to take a profit from dealing with the natives. Would there not be an alternative in the supply of these stores to the natives at town prices, to charge the same prices as now, but to use the profits for the purpose of paying compensation in the case of accident or death to the natives or their relatives. Would that not be a policy which would suit the company's conscience as well as the merchants' objections?—It is in existence now.

424. But you do not use the profits for that purpose?—When we pay compensation or supply medical comforts and hospital accommodation and food for the injured and ill, we do not actually charge those expenses against the profits of trading, but it would be a fair thing to say that the native does benefit materially from the profits we make on sales to him.

425. I was suggesting that it would be a policy which would relieve your consciences and also obviate the merchants' difficulties?—We have a direct charge of 10,000*l.* against the profits, which is distributed among the public institutions in the country. But in the compounds, we have very elaborate and well-equipped hospitals where the natives who are ill or suffering from accident get their medical attention free, and free food, but no wages, of course. I say it would be quite fair to say that that is an application of the profits. Then in the case of an accident, resulting possibly in death, the compensation we pay to the native or his relatives is on a very liberal scale. The law compels us to make some compensation, but we exceed the legal maximum by a very large amount. For instance, in one year, the compensation assessed by the Government officials would probably be in the proportion of 40*l.* to 800*l.*, and we pay the higher amount. The law limits the amount of compensation, but we pay many hundreds more than any man can recover by law.

426. You spoke of convict labour; I do not think you gave the proportions that you use?—Well, the numbers vary. We have anything from 1,200 to 1,500 men.

427. What is the arrangement with the Government?—Well, we feed them, clothe, and guard them, and take off the Government's hands all this expense, and in addition we pay the Government a certain sum in cash. It comes to about 3,500*l.* a year.

428. Is there any amount paid to the convicts themselves—to be paid on release?—Only amounts they get in the case of receiving an injury. Then we compensate them at the time of their release. If they find diamonds we credit them in the book with 6*d.* a carat. The free labourer gets about 5*s.* for the same thing. But we would not be allowed to credit them with any excessive amount. But on their discharge this amount is paid to them.

429. Cost for cost, do you get as much work out of the convict labour as the free?—On the whole it is as good. We only take long-sentence men, and once they are trained they are there for a good many years without any further teaching. I think we do not take anything less than six months, and we have several ten years and even more.

430. Do you have any serious trouble in regard to that kind of labour in the way of an outbreak?—No, nothing that has not been settled in an hour or so.

431. **(Mr. Sinclair.)** A good many questions I intended to ask have been put by others, but there are a few further questions I should like to ask, first of all, about the distribution of the Company's wealth. You told us that the Company's capital consisted of four-and-a-half millions?—Yes.

432. How many shareholders are there in the Company?—It it impossible to say, because the bulk of the shares are bearer shares.

433. There is no register of the individual shareholders in the Company?—Only of the holders of registered shares.

434. Are you able to give the approximate proportions of shareholders who live outside the Union and those who are resident here?—No, I cannot; but the bulk of our shares are held in England and on the Continent.

435. It follows from that, does it not, that the bulk of the shareholders of the Company do not live within the Union?—Yes.

436. And can you give us approximately the proportion of the annual dividends that are distributed to shareholders who live in the Mother Country?—I think that could be got for you.*

437. It bears closely upon the question of the Empire distribution of the Company's wealth?—I doubt very much whether it could be done with any very great degree of accuracy. The Continental shareholder hands his coupons to his banker and these are remitted to London and presented for payment, and we have no means of knowing where they come from.

438. You have told us that the bulk of the shares are held in the Mother Country and on the Continent. Could you say what proportions approximately are held in the Mother Country, on the one hand, and, on the other hand, on the Continent?—I do not think so. I do not see how we can possibly do that, for the reason I have given already.

439. You cannot help me to a closer statement of the proportion of shareholders who live in the Mother Country and those who live in other parts of the Empire?—No, I should think it would be a matter of impossibility for us to say.

440. We may take this, I suppose, as being approximately accurate: that a very large proportion of the annual earnings of the Company is paid in the shape of dividends and goes to the Mother Country?—All I can say is that a very large proportion is paid out in London, but whether it remains in England or goes elsewhere I do not know.

441. That is as close as you can get?—Yes.

442. And those who get their dividends in the Mother Country presumably largely spend the income derived in the Mother Country and pay taxation on that income there?—Yes.

443. As to the machinery which is in use by your Company; most of it, I think we learned yesterday from an inspection of the workshops, is imported?—Yes, the tools and such like, because there are no industries of that kind here.

444. And the well-equipped buildings that we inspected are used chiefly, are they not, for the purpose of repairing?—Yes.

445. Will you tell us what is the country of origin of that machinery?—Practically the whole of it comes from England.

446. I think you have given the numbers of those employed in the mines?—Yes.

447. And, in addition to those that are directly supported by the Company, I take it a very large number of individuals are indirectly supported through the same source?—Families, yes.

448. In answer to the Chairman, you said that you would supply figures as regards the death-rate of white workers in your mine?—Yes.

449. Have you any figures which would show by comparison with other mines what the longevity of workers in your mine is?—I have no figures relating to other mines. I have a statement here regarding

* *Note.*—The witness subsequently supplied the following figures with regard to the dividends paid in respect of the year ended June 30th, 1913:—

	£	*s.*	*d.*
Amount paid in the Union of South Africa	162,848	15	0
Amount paid in London	2,512,151	5	0
Total Dividend paid ...	2,675,000	0	0

the death-rate among our natives which I can hand in.*

450. What I was leading up to was the question of the longevity of workers in your mine as compared with other similar mines in the country, if I could get the information?—I do not know whether it would meet your requirements if I say that we have no disease or anything detrimental arising from the work in the mines as mines.

451. From the thoroughness that the Company does everything, it goes without saying that it does everything in its power to improve the conditions of the worker, his surroundings, and to promote his general health?—Yes, it is our constant endeavour

452. What I wanted to get at, if I could, was, what working in a mine such as yours really involves. Am I right in assuming that the chief disadvantage from which workers suffer in the mine, if they do suffer at all, is from blasting operations?—Naturally, any blasting that vitiates the atmosphere must affect men if they go down to work too soon, or no means are taken to remove the poisonous gases.

453. In so far as dust is concerned, that does not trouble you from the nature of your working, but the other evil that does affect workers in some mines is the consequences of blasting. May we take it that your Company does everything that is reasonably possible in order to minimise the unavoidable evils that must arise from blasting operations?—Yes, we do a great deal more than the law could compel us to do.

454. You have not so far been in a position to collect information which would throw light on the comparative longevity of the workers who work in your mine?—No, I have some figures, I think, in regard to the ages of our men which may be useful, and which figures are divided into periods, say up to 30, 40, 50, and 60, prepared in connection with our Benefit Society.†

455. That will throw some light on the question, no doubt?—I will supply it.†

456. You told us, I think, earlier in your evidence, that the Company has in its employ workers that have worked in the mine for considerable periods?—Yes.

457. Does it not follow from that that you have workers in the mines—I am speaking now of the native workers—who would be affected by the blasting conditions—does it not follow from that that a proportion of them must be well advanced in years?—Yes.

458. Can you tell us, generally, are the natives who work in your mine young men, middle-aged men, or approaching the elderly?—There are a great many quite young men. The only restriction we make is that we won't take picanninis. The law forbids us to take anybody underground under the age of 16 years, and, as a matter of fact, very few of those are any good to us. There are a few for whom there is a certain class of work, but the bulk are adults.

459. Is there a substantial proportion of those workers over, say, 40 years of age?—I would not like to say that. You can see for yourself to-day when you visit the mine the class of men and their ages.

460. I am not sure if I could tell their ages. However, those who are engaged in the compounds have to remain there for a certain fixed period?—Yes, four to six months. Those are the contract periods.

461. Do you find that many of them renew their employment when they leave the compounds, without an interval?—No, I think comparatively few do that. Most of them would go away for a few weeks.

462. Would it not be the case that the interval between those courses of employment would be in favour of the health of the worker and tend to prolong his life?—That seems to assume that there is something detrimental in their work in the mines, but I do not think any of the health returns will indicate that the men suffer in any way from their occupations in these mines.

463. The official records, so far as they exist, prove that the men are working under sound conditions?—Yes.

464. Now as to wages: you told us, I think, that the average wage earned by the coloured worker was 3*s.* 4*d.* a day. It is not possible, I suppose, to give any comparison between the wages earned by the coloured and those earned by the white, for the reason that the white man does not do corresponding work?—No.

465. Can you give the Commission any information as to the proportional increase of wages paid to black workers in your mine during, say, the last ten years?—I do not know that our wages have varied in any appreciable degree during that time.

466. Has the tendency not been upward as it has been in other parts of the world?—I do not think so. I think we have always paid much about the same wages as we pay to-day.

467. That would seem to suggest, would it not, that the cost of living, which has gone up so greatly in other parts of the world, has remained fairly stationary here: I am speaking now more particularly of the native worker?—The native comes here with the idea of making so much money. For instance, he does not look at it quite in the same way as a white man. He would not take into consideration the number of hours he has to work in the week, but he would calculate how much money he would get at the end of the week, and he would make up his mind that he would take so much money home, and would feed himself accordingly. So I would not like to say that there is any relation, as far as the native is concerned, between the rise or the fall in wages and the cost of living.

468-9. So that the trend has not been appreciably upward?—Not as far as native wages are concerned.

470. What is your opinion as to wages in future? Do you think that the trend will be upward?—I would not like to express an opinion in regard to that.

471. Is the native, generally speaking, satisfied with the pay that he receives?—He would not come back if he were otherwise than satisfied, I think. At any rate, there is no sign of any dissatisfaction.

472. There is no evidence of any movement towards combination?—None whatever.

473. Generally then, we may take it that they are satisfied?—Yes, I think they are from what can be seen.

* *Note.*—This return was as follows:—

De Beers Consolidated Mines, Ltd.

Native Death Rate per 1,000 from Diseases and Accidents.

Year.	Average Daily Number attended in Native Hospital.	Pneumonia.	Death Rate per 1,000.	Other Diseases.	Death Rate per 1,000.	Total Deaths from Diseases.	Death Rate per 1,000.	Accidents.	Death Rate per 1,000.	Total Deaths from all causes.	Total Death Rate per 1,000.
1907	20,376	318	15·61	154	7·56	472	23·16	58	2·85	530	26·01
1908	9,663	60	6·21	76	7·87	136	14·07	20	2·07	156	16·14
1909	10,614	76	7·16	40	3·77	116	10·93	23	2·17	139	13·10
1910	14,792	186	12·57	59	3·99	245	16·56	30	2·03	275	18·59
1911	14,887	160	10·75	64	4·30	224	15·05	34	2·28	258	17·33
1912	12,930	122	9·44	48	3·71	170	13·15	20	1·55	190	14·69
1913	13,059	122	9·31	64	4·90	186	14·24	29	2·22	215	16·46
Total	96,321	1,041	10·84	505	5·24	1,549	16·08	214	2·22	1,763	18·30

† Not reprinted. The figures show that the average age of members on April 1st, 1913, was 36·12 years.

474. Now, as to accidents: I suppose that records are kept of accidents that occur in the mines?—Yes, every accident is recorded, certainly.

475. Is your mine inspected periodically by an officer appointed by the Government? — There is a resident inspector of mines in the town, and he visits the workings continually.

476. He periodically inspects the mines and the working conditions, and presumably makes reports to the authorities as to what he finds the conditions to be? — Yes, and he investigates every accident that happens and every breach of the regulations. We have to report to the Government every accident, and send elaborate returns in connection with our labour every month.

477. Are inquests held?—In the case of fatalities occurring, yes.

478. So the inspector makes his report, and in addition to that there is an inquest and an official enquiry held by the magistrate?—Yes.

479. **(Mr. Campbell.)** Is there any taxation on the Company, as a company, in the United Kingdom?—Not now. There was, up to a couple of years ago. We had to pay the usual income tax. It does not exist any longer because we altered our trust deed so as to remove any basis for taxation. We did not think it fair that as our profits were made here we should pay English income tax. Shareholders, of course, pay it still on their dividends.

480. **(Chairman.)** You did away with your Managing Committee in London?—With the Board of Directors holding meetings there. A great many companies have committees in London and they are not subject to the tax, but if you have a Board of Directors sitting as a Board in London, you are liable to pay income tax.

481. **(Sir Jan Langerman.)** You estimate the life of your mines simply by analogy?—Yes, to a great extent, and to a certain extent on absolutely ascertained data.

482. Because one mine has gone to a certain depth you consider that the others will also go to the same depth?—Yes, that is in addition to absolutely ascertained facts.

483. Have you bored at all to find out?—No.

484. What is your experience of the value of the mine? Has the value improved or decreased in depth? —Our published statements show that, compared with near the surface, our mines are poorer to-day than they were then.

485. What is your system of benefit societies here for the workmen?—We compel every man to join the Benefit Society when he enters the Company's service, and the contribution for men in receipt of over 11*s.* a day is 6*s.* per month, and the Company contributes on the £ for £ principle. There are varying rates for lower wages. I can put in a copy of the Benefit Society's rules showing all this information in detail.

486. **(Chairman.)** Yes, I should be glad if you would.*

487. **(Sir Jan Langerman.)** What are the benefits? —They get sick pay, hospital expenses paid, travelling expenses and a coast allowance for living down at the coast according to the class of medical certificate they receive, and they receive also special relief where cases are dealt with on their merits, such as, for instance, where a man's wife has been sick, or his children, and they are ordered away to the coast; but the amounts are entirely in the discretion of the Committee, whereas the other benefits are fixed by rule.

488. Do the widows benefit at all?—No, it is nothing in the way of a pension scheme.

489. They come under the Workmen's Compensation Act?—Of course, we are subject to that Act.

490. Who manages this Benefit Fund?—It is managed by a Committee consisting of representatives of the different Departments of the Company. The Chairman of the Society is the General Manager or the Secretary of the Company.

491. The men have no representation, have they? —Oh, yes, there is a representative for every Department. For instance, each mine has its representative.

492. Is it elective?—Yes. The men elect their representatives. Each Department has its own direct representative.

493. What does the Company do towards housing the men?—Principally, the men look after themselves, but there is a village at Kenilworth which was built by the Company, and I have a statement here which will give all information for you. There are 125 houses, all occupied, and the rents are as follows:—17 houses at 2*l.* per month, 56 at 2*l.* 10*s.*, 19 at 3*l.*, 23 at 3*l.* 10*s.*, 1 at 4*l.*, 6 at 5*l.*, 2 at 8*l.*, and one at 12*l.* 10*s.* There are also 42 single rooms, 16 only occupied, at 10*s.* per month, inclusive of water and sanitary fees. The population consists of 179 men, 169 women, and 213 children. Electric light is installed free. Current is supplied at the rate of 4*d.* per unit, with a minimum charge of 1*s.* 6*d.* per £ rental monthly. A fixed charge of 2*s.* 6*d.* per month is made on the single rooms. Filtered water is supplied for domestic purposes at 4*s.* per house per month. For garden purposes, 3,000 gallons of unfiltered water is supplied monthly free, in excess of which amount a charge of 5*d.* per 100 gallons is made. Sanitary and dust removal is free. The cost of maintenance of houses for 1913 was 4,776*l.* 10*s.* 11*d.*, against a gross revenue of 4,365*l.* 11*s.* The total cost of erecting six new houses was 5,380*l.* 17*s.* 2*d.*, and the cost of installing the electric light was 3,494*l.* 0*s.* 2*d.*

494. Have you a system of boarding houses on the mines?—We have one at Wesselton, which is rather away from the town and is a considerable distance for the men to come and go to meals. We have built a boarding house, and the caterer in charge is paid by the men 30*s.* a week, I think, for board and room.

495. And you control the affair?—We lay down the amount that he can charge: he cannot exceed that.

496. In regard to the cost of kaffir labour: you say it is between 3*s.* 4*d.* and 3*s.* 5*d.*?—Yes.

497. Does that include recruiting fees?—No, that is wages.

498. And food?—No, we pay their wages and they feed themselves; we do not supply food.

499. That 3*s.* 4*d.* is including his food?—We have no other expense than that: that is the full wage. Our recruiting is practically nothing.

500. On the Rand it is 3*s.* 3*d.*, which includes recruiting expenses and feeding. So that you are not far out: you are about the same?—I should say we paid better, because your recruiting expenses are very heavy there.

501. What is the arrangement as regards the convict labour feeding, and so on?—We have a station built, which is run by the Government officials, paid by the Company. There is a superintendent and officials appointed by the Government. It is run practically as an ordinary Government convict station, except that the prisoners have a few greater benefits than they would get at the ordinary station in the way of better food so as to fit them for the hard work.

502 And they work the same as the free labourers? —Yes, there are none in the mines: they only work on the surface, not underground.

503. Nothing beyond what the ordinary free labourer does on the surface?—That is so.

504. Altogether, they have a good time compared with the ordinary prisoners?—They have to work a great deal harder, but they are fed better.

505. **(Mr. Tatlow.)** In regard to the wage of 3*s.* 4*d.* for the native workman, you said it was the average?—Yes.

506. And the lowest 2*s.* 6*d.*?—Yes.

507. You did not tell us how high you went?—They go up to 5*s.* and 6*s.* I will show you the wage sheets to-day at the compound and you will see the wages paid to each boy.

508. Does it mean that the man who receives 6*s.* a day does superior work to the man who receives 3*s.* 4*d.* a day?—No, that is contract work—piecework.

509. In regard to native recruits, you said that you paid the fares of those who contracted for six months?—Yes.

510. Is that irrespective of the distance from which they come?—Yes.

511. They come very long distances?—Yes, hundreds of miles.

512. Is there any reduced fare?—I think there are special fares for the boys coming in batches. A single boy would not come at the same rate as twenty or more.

513. If they come in small numbers do they pay the ordinary fare charged to the general public?—No.

* Not reprinted.

I think there is a special fare for natives travelling as they do, because there is special accommodation provided for them.

514. What is about the greatest distance they travel?—We get boys 350 miles away from beyond Mafeking, and they come from the Transkei, Pietersburg in the Transvaal, and from Basutoland, but probably the greatest distance they travel would be between three and four hundred miles.

515. Do a large proportion engage for six months?—Yes.

516. It is a consideration to them when they travel a long distance—the railway fare?—Yes, I take it so.

517. **(Mr. Lorimer.)** When I was in the Company's workshops yesterday, I saw, of course, a great many coloured men—I do not know how you would classify them—but I want to ask, is it a fact that these men, or any of them, are of the same race as those in the mines?—Do you mean the native? There is a great deal of difference between the "coloured" man and the native.

518. The men who work in the mines, are those natives?—Yes.

519. Have you any natives in the workshops?—Yes, about 300.

520. So that the compound system is not intended to effect a segregation of races?—No.

521. But to ensure a minimum loss from theft?—Yes, and to ensure that you have sober men to start work on Monday morning.

522. With respect to what was said about the hospitals, I suppose you get a daily return of the number of men in the hospital?—Yes.

523. Do you happen to remember what the average is?—I should say about one per cent.

524. Do the men who are unfit for work necessarily go to the hospital, or do they remain in the compound?—A great many are treated for minor complaints in the compound. If a man has a headache or such like ailment he is treated in his bunk.

525. The doctor sees them in their compound?—Yes.

526. In regard to the apprentices—do you train these boys to special trades; do you train them in mining exclusively, or in mechanics exclusively, or chemistry exclusively?—Not chemistry. But all the trades such as mining, carpentering, fitting, blacksmithing, electrical work, and so on.

527. And you employ qualified teachers?—Yes.

528. And do the boys pay for that training?—No, we pay them for the work they do while being trained. They pay no premiums of any kind.

529. A good boy is encouraged in that way?—Yes.

530. You said in the course of your evidence that the amount paid directly and indirectly by the Company to revenue was over 700,000*l.* a year?—Very nearly 800,000*l.*

531. But you do not call that taxation?—No, except, of course, the profits tax, 426,000*l.* That is a direct tax on our profits.

532. Your Company owns its own explosives works?—Yes.

533. How much of the output do you use on the mines here?—About 12½ per cent. is used here.

534. And do you find a market for the remaining 87½ per cent?—Yes, at Johannesburg principally.

535. Do you ship any of it outside of South Africa?—A small proportion is sent to Australia, but nowhere else.

536. **(Chairman.)** You said the mines were getting poorer in depth; can you say at what rate?—The fall in value has been very, very gradual indeed, and it varies a good deal. Sometimes it will jump up, and then go down, so that it is impossible to set any rate whatever on it.

537. But there is a distinct falling off in depth?—Yes, our published accounts will show that.

538. In answer to Mr. Sinclair, you said there was no tendency to increase the rate of pay for black labour. Would you say the same in regard to white?—No, our wages to white men have been increased at different times. There has been an increase in our rates, especially to miners, and within the last six months there has been an application for a further increase, coming after an increase which had been made only a few months before.

539. Compared with fifteen months ago, can you say what the increase has been?—Yes, in some directions. We are paying our qualified miners to-day in the chambers 22*s.* 6*d.* a shift, and a few years ago for similar work we paid only 16*s.* 8*d.* In shafts we pay 25*s.*

540. As compared with what?—That was always well-paid work. I do not think there has been much change there.

541. On the surface?—Wages vary in regard to the different classes of men, but practically there has not been the same increase on the surface that there has been in regard to the actual miners. I have a list here of the wages paid for the different classes of work.*

542. I notice in your balance sheet you put Investments in Stocks and Shares at 1,339,000*l.* and in Reserves Investments 1,932,000*l.* There is a total block of 3,200,000*l.* Do you publish details of these investments?—No, but they are often referred to in the Chairman's speech.

543. **(Mr. Tatlow.)** You gave your rate of wages per shift?—Yes.

544. What number of hours does a shift represent?—Underground, eight hours for natives and whites.

545. **(Chairman.)** On the surface, 10, is it not?—You can roughly call it 10. It varies a little. In the workshops it is a 54-hour week, on the surface works and floors, for odd jobs, we call it roughly 10 hours.

546. And underground it is eight hours face to face, not bank to bank?—Yes, face to face.

547. What do you calculate the difference between face to face and bank to bank?—Anything from a half to three-quarters of an hour.

548. **(Mr. Tatlow.)** Is the work underground going on continuously?—No. At present we are working only two shifts underground and one hoisting shift. We break ground for 16 hours and hoist for eight hours.

549. **(Chairman.)** Is there any other point?—I had a list of questions here, but I think you have covered them all. There is a question here—How many shafts are working? I do not know whether that is a mistype for "shifts"?

550. No, it comes into the proportion of total output?—We are working four mines at present, and one is standing idle and has been for the last five or six years, in pursuance of our policy of restricting

* The lists were as follows:—

Europeans.—Wages.

	Per Shift.	Per week.
Banksmen, Cagemen, Onsetters	13/4-16/8	—
Blacksmiths	16/8-21/8	—
Boilermen	16/8-20/0	—
Boxmen	16/8-22/6	—
Carpenters	16/8-21/8	—
Electricians	13/4-20/0	—
Engine Drivers, Man Engines	20/0	—
,, Winding Engines	23/4	—
,, Underground Hoists	16/8	—
Fitters	16/8-21/8	
Guards	—	£3 10/0-£4 10/0
Guards, Head	—	£5-£7
Machine Men (Washing) ...	16/8-23/4	—
Miners	16/8-22/6	—
,, Shaft Sinking	25/0	—
Moulders	20/0	—
Overseers	12/0-14/8	—
Painters	13/4-20/0	—
Platelayers	16/8-20/0	—
Pumpmen	13/4-16/8	—
Riggers and Wiresplicers ...	16/8-20/0	—
Timbermen	16/8-20/0	—
,, in shafts	22/6	—
Unskilled Whites	10/0-16/8	—

Natives.—Wages.

Underground—

General Hands and Drill Boys ...	2/6-5/0 per shift.
Machine Drill Boys	"Waugh" Drills, 4/0 per 80 feet. "Flottmann" Drills, 4/0 per 80 feet. Shaft Sinking Rock Work, 4/6 per 3 feet.
Loading Boys	22/6 per 100 loads.

Surface—

General Hands	2/6-4/6 per shift.
Loading Boys	12/0 per 100 loads.

the output. There is a question about the nationality of white employees. That is as follows:—English 31·4; Scottish, 7·9; Irish, 3·0; Welsh, 0·8; South African, 52·8; European, 1·1; American, 0·4; Canadian, 0·0; Australasian, 0·9; others, 0·9. You also ask how many men are employed by the different departments and what are their principal occupations I can give you a résumé, as follows:—Technical staff, 89; Farms staff, 24; Clerical staff, 157. Other white employees:—In mine, 669; surface washing plant, 671; surface workshops, 832; surface, sundry, 436; various, 59; Total, 2,937.

ORANGE FREE STATE.

Bloemfontein, Saturday, 21st March, 1914.

Mr. G. E. B. Frood, M.A., M.I.M.M., Inspector of Mines in the Orange Free State, called and examined.

551. **(Chairman.)** You are Inspector of Mines in the Orange Free State?—Yes.

552. In that capacity, what are the principal mines you inspect?—In this State we have only diamonds and coal.

553. The largest diamond mine is Jagersfontein?—Yes, that is the largest mine we have. Altogether, we have seven diamond mines working.

554. All producing?—Yes.

555. Jagersfontein is much the largest?—Yes.

556. And in the way of coal?—We have five collieries producing coal.

557. What is their total output?—The total output of coal for last year amounted to 609,973 tons.

558. Is that output increasing?—That output is on the increase. It has been increasing of late, and I think it is likely to increase in future.

559. What is your large colliery centre?—Vereeniging.

560. That is in the Transvaal, is it not?—The town is on the other side of the Vaal River, but the coal is on this side. There was a large colliery at Vereeniging, which was the pioneer colliery in the Transvaal, but that failed, and what coal was left has proved to be very broken and useless, so they have come across the Vaal River and are opening another pit on this side now, and leaving the other side alone altogether.

561. Where is the market for Free State coal?—Principally at Johannesburg, but a large quantity also comes this way for household purposes. The railways do not take any.

562. No coal is exported or used for bunkers?—No, our quality does not run to that. It is not the best steam coal.

563. How does the quality compare with Witbank?—I think, if you took 10½ to 12½ you would be near the respective qualities.

564. What is the total diamond production for the Free State?—For 1913, we turned out 504,756 carats of a value of 1,676,756*l*.

565. How much of that was from Jagersfontein?—I should say there would be about 350,000 carats. I am afraid I have given a rather rough figure.

566. Are you acquainted with the labour conditions at Jagersfontein?—Yes.

567. What is the staff employed there—white and native?—At present it averages about 800 white men and about 8,000 natives.

568. Do they get an adequate supply of labour, both native and white, as they require it?—Yes, very easily.

569. At what rates of pay?—At Jagersfontein the native rate is round about 3*l*. 5*s*. a month, not including rations. The mine rations the natives itself.

570. That is about 2*s*. a day?—Yes.

571. What is the ration in your opinion equivalent to?—I think there has been a very considerable change in regard to the rations lately, and that matter is now regulated by the Native Affairs Department. Owing to this recent change, I am afraid the figures in my mind are not very accurate.

572. The change has been in what direction?—Towards improvement. The object has been to lay down the native's food on a more scientific scale.

573. In increasing the amount and the quality?—Yes, and I think more particularly in the direction of securing a more varied diet. The diet on our mines has a very limited range.

574. Have you formed any opinion as to the relative merits of the two systems—that of rationing the native employees and that of giving them money in lieu of rations to buy what they like? That is the De Beers' system?—I cannot speak as to the way it works at Kimberley, but I believe the system has proved disastrous in this State at times. If you allow boys to ration themselves, the tendency, as has been proved on several occasions, is for them to neglect their food in order to save as much money as possible. I have heard that this has led to considerable mortality, on one occasion in particular, but that was before my time.

575. I take it you have no personal experience of that?—No.

576. How far back is it?—I have been in this State for nearly eleven years.

577. Within your own experience, have there been cases of natives who were free to buy their own food and the system was found to be unsatisfactory?—In my time we have not had a single case, except perhaps very small matters which did not attract my personal attention. On our mines, the system has been entirely one of the Company rationing the native.

578. Is the official view of your department in favour of that as compared with the other system?—That, as I have explained already, is rather outside the sphere of my department. It comes under the Department of Native Affairs.

579. And you are not prepared to say what the Government view is regarding the health and mortality either on the diamond mines as a whole or the Jagersfontein in particular? Have you any figures that you can give us?—Yes. Our accident rate for 1913—that is our mortality from accidents—was 3·16 per thousand per annum, which is larger than in any year since 1905. Our mortality down here is very small, usually between 1 and 2 per thousand per annum, from accidents alone.

580. Now putting accidents and illness together?—Our mortality from disease during last year was very slightly over 21 per thousand per annum.

581. And previous years?—It has been going up and up. Lately we have been having a good deal more of underground mining, and there is no doubt whatever that the increase is to be attributed to this cause. It is in a peculiar degree due to underground conditions; that is the conclusion I have come to, at any rate. Lately we have been having a very large increase in underground work, especially at Jagersfontein, and the result of that has been a large amount of pneumonia. I have seen the total mortality (disease and accident) figures for the whole of the Free State as low as about 12 per thousand per annum against our present 24, and that has been mainly due to the increase of pneumonia.

582. Have you taken any special steps to deal with this increased mortality?—That, of course, has been the great trouble on the Rand also—this question of pneumonia. As you may possibly be aware we have just had a visit from two eminent authorities who

have been investigating this subject of mortality on the mines. The Chamber of Mines at Johannesburg got out, in the first place, Sir Almroth Wright to report on the matter, and they have since had Colonel Gorgas.

583. Did he come to your mines?—No, he did not.

584. Regarding the health of the white employés, have you any figures?—No, I have no special figures. It may be taken that the death rate among the whites is much less.

585. But, surely, in the diamond mines the character of the dust is less dangerous than in the case of the Rand?—Yes, that is so. That is a matter that would affect the question of miners' phthisis. I would point out that one of the greatest dangers we have to contend with in cases of pneumonia among the natives is that they are most unwilling, unfortunately, to be sent to hospital or to be taken away from their work at all, and it comes to this that, when natives are detected to be suffering from the disease, it is often too late to do anything in the way of curing them. Considerable pains are taken to detect this disease, but, as I have just stated, owing to the reluctance of the natives to lay up, it is most difficult to deal with it. The disease is generally so far advanced that it is very often a case of certain death. The number of deaths is extremely large in proportion to the cases. They do not want to be detected, and do their best to avoid it.

586. What is their motive?—I suppose they do not want to lose the money. They know that if they go to hospital they are going to be there for some time, and if they are detected as looking ill they will be kept under observation for some time. If the mine authorities see a boy is looking bad they put him in a room and keep him under observation and see if anything develops.

587. You say there is no difficulty in getting as many natives as you require?—There is no difficulty. The diamond mines seem to have a peculiar attraction for them, much more so than the coal mines. In regard to those in the north of the State, we have to compete with the Transvaal for labour, and we have the same difficulty as they have.

588. Why is that?—I think I may fairly claim that the diamond mines have taken particularly good care of the natives in the past, and the rewards which the mines allow for the discovery of stones are also an attraction to the native. They allow a certain sum for any stones which the natives pick up in the blue ground on the floors or in the mine.

589. Do the mines in the Free State have to spend large sums in recruiting?—As a matter of fact, our total recruiting charges in the Free State for twelve months do not run to more than perhaps four or five shillings each boy—a very, very small thing compared to what is necessary in the case of mines in the Transvaal.

590. And your coal mines?—They have to pay large sums proportionately.

591. Do they recruit by themselves or join the Rand Association?—They join the Association.

592. What is your view regarding that system of recruiting?—It comes very little within my experience. Two collieries are practically the only mines in my whole district which get boys from this Association.

593. Have you any views on the comparative merits of the flat rate, with or without bonus—a time rate as compared with the system of contracts?—Do you mean as regards native labour?

594. As regards native labour, yes, or as regards white labour also?—As regards white labour it scarcely comes within my experience, as we have practically no contracts. As regards native labour, we have a great deal. Truck loading and drilling are both done to a large extent by piece work. It seems to work very well. The natives like it, and they work better. I can detect no evil in the system at all.

595. **(Mr. Lorimer.)** I suppose your duties are to see that the mining regulations are duly observed?—Yes.

596. And over what area does your duty take you?—The whole of the Free State.

597. And you have seven diamond mines and five coal mines working?—Producing.

598. And are those at all near each other, or are there good distances between them?—Great distances.

599. Have you a staff of assistants?—No, except the office staff.

600. Are you single-handed?—So far as inspection goes.

601. I suppose that involves constant travelling on your part?—Yes, I suppose I am travelling from 12 to 14 days in each month.

602. Your headquarters are here?—Yes.

603. Do you find that the mine owners are willing and anxious to assist you in every way they can to keep the mines in good condition?—Exceedingly so.

604. I was in one of the mines in Kimberley and I was struck with the excellent ventilation. On that point I suppose you are entirely satisfied?—Yes.

605. What is the depth of the mines worked at Jagersfontein?—Within the last two years it has been changed over from the open mine to underground mining, and now it has become entirely underground.

606. Formerly, you had surface working?—Yes, in the open down to a depth of 720 feet. I suppose it was the deepest open mine in the world at the time it finished.

607. What is the greatest depth you are now working?—The main level is 900 feet, but we are now opening out to a depth of 1,600 feet.

607A. And the coal mines?—The principal ones run from 150 to 400 feet.

608. I noticed you said that when the boys rationed themselves, they neglected feeding and the mortality increased?—I said that had been the experience in this State before my time. I have been here eleven years and there has been nothing of that sort during my time.

609. In the diamond mines in this State the boys are rationed, are they?—Yes.

610. What was said to be the reason for the change?—I think that in the case of some mines in this State they always have rationed them from the start.

611. At Kimberley we were told the boys preferred to ration themselves and they found the results quite satisfactory?—I have no doubt that is the case at Kimberley.

612. Your percentage of fatal accidents is 3·1 per thousand?—It was last year: it has been exceptionally high of late.

613. On the other hand, your mortality from disease is 21 per thousand. Is this excessive?—We consider it is. We have been accustomed to lower figures. We get a very healthy class of native here.

614. And is pneumonia the worst disease?—Yes, much the worst.

615. Does pneumonia attack them shortly after they begin to work? I mean to say, do they seem to get resisting power after being months with you? Are the pneumonia cases the ones who have quite recently come to work?—I have enquired and I do not think they have been able to differentiate.

616. One would think that the change of conditions would make it effective at a very early stage?—Yes. In regard to other diseases it was the case. I do not think it has been so remarkable with pneumonia.

617. I should think that after being down there three months and getting acclimatised and accustomed to the conditions, he would be less likely to catch pneumonia. I think you said you had nothing but diamonds and coal?—We have some small things, such as salt, of which we produce a considerable amount from salt pans.

618. No copper or tin?—No.

619. Is there any gold in this State?—Yes, we have some reefs, but it is not found in payable quantities.

620. **(Mr. Bowring.)** Have your coal areas been thoroughly prospected?—No.

621. So that you have no idea of their extent?—No. We hope that a geological survey may come in this direction within the next year or two. But so far there has been no systematic prospecting.

622. You are of opinion that they are of considerable dimensions?—Yes, we have an enormous coalfield—undoubtedly the second largest in South Africa.

623. Is the output becoming greater annually?—It is increasing slowly.

624. Your output at present being about 700,000 tons?—Yes.

625. And the quality is similar to the Transvaal?—No, of second-grade quality only.

626. Valued at how much at the pit's mouth?—About 5*s.* 6*d.*

627. And it is mostly consumed in the provinces?—An appreciable amount comes down south for household purposes, but very little is used in the mines. A considerable quantity goes to the Rand for steam purposes. A very large power station has been started at Vereeniging which, I suppose, will take about 30,000 tons a month.

628. Where does that power go to?—It is distributed on the Rand by the Victoria Falls Power Company.

629. And your diamond mines, I suppose, are not fully prospected either?—It is like looking for a needle in a haystack. An enormous amount of prospecting has been done and an enormous amount still remains. So far as *systematic* prospecting for diamonds is possible, it has been well done.

630. I suppose mines might be found accidentally at any time?—Yes.

631. The surface indications of diamond mines are not very plain?—No, they are very indefinite. We have indications on an enormous number of farms.

632. Are there any diamonds found on the surface?—No, except at the alluvial diggings.

633. Are there any alluvial diggings in this State?—Yes.

634. But they are not very important?—No.

635. **(Mr. Tatlow.)** Pneumonia has become a terrible scourge?—Yes.

636. And the workman goes on until it has reached an advanced stage?—Often, yes.

637. Once the workman incurs this disease, is it always fatal?—No; but I must say that an unusually large proportion die.

638. If it is taken in time, is it curable?—I understand it is a matter of the course of the disease and the system attacked.

639. Is there no periodical medical examination of the men which could discover it and prevent it getting to such an advanced stage?—Yes, there is; but you can understand that a boy does not want to be detected, and will straighten himself up when passing the compound gates, and if he does not want to be detected he can generally manage it.

640. Does the medical examination come within your province and to make necessary regulations?—Everything affecting underground conditions comes within my province.

641. Including conditions of health?—That is rather a divided responsibility. The Native Affairs Department would take control of the matter generally, but if they were in a position to say they believed that the bad health was due to underground conditions, I suppose the responsibility would fall on us. At any rate, we see to the matter of ventilation and everything else like that that may affect the native's health.

642. And also that the medical examination is properly carried out?—I understand it is done, but, personally, I would not take any special steps in regard to that.

643. You do regard 21 per thousand as a very high death-rate as applied to a community of miners, where the men are usually at the healthy age of life?—Yes, and considering that we get a very healthy type of native here.

644. You cannot compare it to the death-rate of an ordinary town or city where the population includes old and young?—No.

645. You said the boys were paid 2*s.* and rations—does that include everything they require in the way of food and drink?—Yes.

646. Does it include tobacco?—At Jagersfontein they used to allow tobacco, but I do not know whether they do now. I have seen the time they allowed the boys either a tot of brandy or some tobacco.

647. **(Sir Jan Langerman.)** Have you the closed compound system here?—We have it at three out of the seven mines, or rather four.

648. Why not at all?—The conditions vary as regards the danger of losing stones.

649. Are not the chances of stealing diamonds equal on all the mines?—No. The more diamonds there are in the ground the more chances of stones being picked up.

650. The closed compound system was introduced for the prevention of theft?—Yes, mainly, and also because it operates towards the better control of the natives, which is very important.

651. They cannot get drink?—No.

652. But it is curious that two or three of the mines should not require that system?—I must explain those are small places, comparatively, and they do not seem to have thought it worth while. I do not think for a moment they would argue against the principle.

653. There is a large amount of disease through pneumonia. You would not regard that as an occupational disease?—I am afraid, as regards boys underground, we should.

654. But it is not brought about by their occupation, such as miners' phthisis?—I think it must be regarded as caused by the conditions of their occupation.

655. Have you any system of change houses and covered ways from the compound to the mine to prevent their catching cold?—Yes, everything that can be done is done, and the mines are only too anxious to be further instructed in the matter.

656. You have covered ways from the mine to the compound?—In the Jagersfontein they have a tunnel at a depth of 60 feet from the mine shaft into the compound.

657. And change houses as well?—Yes.

658. And yet you cannot cope with the disease?—It is not decreasing.

659. And you consider this is due to their occupation?—It is associated with it. When we find, say, 20 cases coming from the mine and only two from the surface, we must regard it as associated with their employment.

660. You do not think there is any chance of their catching it on the surface, by being careless after coming up from the mine?—That is possible, but not probable.

661. **(Mr. Sinclair.)** Who appoints the medical men who make these examinations?—The companies themselves.

662. Is there no medical officer appointed by the Government to undertake that work?—We have a medical officer of health here. There is the Government Medical Officer of Health for the whole State, and the figures in regard to disease are brought to his notice. Monthly statements are forwarded to him.

663. But I want to know is there no responsible medical officer appointed by the State to examine the natives to see how the disease from which they suffer is progressing?—Well, as I have already said, his attention is drawn to it, and it becomes then a matter for him to give attention to the subject. And in the Transvaal we have a Medical Inspector of Mines, whose duty it would be to look into very bad cases. The figures are brought to his notice.

664. To begin with, the majority of boys who go to work in the mines are young?—Yes.

665. Are they absolutely free from pneumonia when they go to the mine?—They are medically examined before being allowed in the mine

665A. Who conducts that examination?—The Company's medical officer.

666. You told us that the natives endeavoured to shirk exposure of their having contracted pneumonia. Is there any systematic State examination periodically of these men while they are employed on the mine?—The boys are carefully examined as they come out and in, and their appearance is noted. If anything suspicious is noticed, the boy is sent to a room for observation by the medical officer who visits these boys every morning.

667. That is an examination conducted by the medical officer?—Yes, of the Company.

668. Now, do not you think that, inasmuch as there is such a large proportion of these workers who contract pneumonia, it would be well if there were systematic State examinations periodically of all the workers in the mine?—I do not think it would be the least good. I believe these mine medical officers are thoroughly competent and they are heart and soul in the business of combating the disease

669. It is on the point of prevention that I am asking. Is it not possible that with the knowledge that, unless prevented, a very large number will contract the disease—is it not possible to do something to prevent it—that is, to arrest it before it has

gone too far?—Well, I think that everything that tends to the improvement of the mine underground tends to help us to combat the disease. That is what our mines are working for.

670. But the mortality still goes on?—Yes, we have not been successful yet, but we are fighting forward all the time.

671. Has progress been made during recent years in reducing the mortality?—No, sir; as far as I have been able to see, the increase in underground work has tended to increase pneumonia.

672. Although you do all possible to minimise the evil, it is apparently going on unchecked?—No, every suggestion that is helpful is tried.

673. With what result?—We have not been successful, but other means remain to be tried.

674. That is as to the future, but in the past, unfortunately, notwithstanding the fact that the Company has done, I am sure, all in its power, the mortality continues at this high rate at present?—Yes; but, for instance, now at Jagersfontein they are having their entire system of ventilation changed to a new system, which is being tried for the first time in South Africa, entailing enormous expense. They are putting in intermediate levels in their workings entirely for the sake of getting better ventilation.

675. Ventilation, I would suggest, must be an important factor in reducing mortality?—Yes, that is recognised as likely.

676. And developments are going on in that direction?—Yes.

677. Now we know that a very large proportion of those who die from diseases, as apart from accidents, die from pneumonia?—Yes.

678. That is the case as regards those of whose deaths records are kept?—Yes.

679. Does any considerable proportion of those who work in the mine go home and die there?—I do not think so; it is a strict regulation imposed by the Government and, I think, attended to by the Company, that no boy is allowed to leave the mine unless he is thoroughly fit to travel; otherwise he is kept for further treatment.

680. As bearing upon what you have told us about the attempt of the workers to avoid examination, is it possible to circulate information in their own language advising them of the danger of not taking precautions at an early stage?—Yes, it is quite possible, but I do not think they would pay any attention to it.

681. As regards coal mines, the area of coal in the Union is practically unlimited, so I won't ask you as to that, but can you tell us whether the system of mining is piece work or days' wages?—It is days' wages.

682. **(Sir Rider Haggard.)** Can you tell us how this high death-rate of these healthy young natives, who have all been medically examined, will compare with their normal death-rate between the same ages in their kraals?—I am afraid I cannot say that. I can tell you this, that in the last ten years I have seen the death-rate from disease down to 10 or 11 per 1,000 as against the present 21 per 1,000.

683. That is in diamond mines?—Yes, that is before we started underground work.

684. I mean they are a very healthy class of people outside in their own habitations?—The Basutos are a particularly strong and healthy class.

685. Therefore, it is the occupation that causes the death-rate undoubtedly?—Yes.

686. This pneumonia, I am told, is very often of an extraordinarily virulent and comparatively contagious type?—Yes.

687. I understand so virulent that the death-rate is often two-thirds of the cases?—Yes, that is explained, I think, largely by the boys escaping observation.

688. What is this inspection of which you have spoken? Do the boys simply walk past the medical officer as they go down to work?—No, they are examined carefully when they come in, but once they come in, I understand it depends on the compound officials picking them out if they show any signs of disease.

689. Are you talking of when they come in?—Afterwards.

690. Is there any daily examination by a medical man? You can understand that it would be impossible to have a daily examination. We have, for instance, 8,000 boys altogether at Jagersfontein alone, and the medical officer thinks he has done a very hard afternoon's work if he has examined one hundred boys.

691. I did not know if they walked past the doctor in the same way as passengers on a ship?—No, I think the compound officials inspect the boys.

692. And those compound officials may or may not, of course, have any elementary medical knowledge. I would suggest to you that a man suffering even from the very beginning of this disease ought not to be so difficult to detect by the skilled eye. Is there any sickness in the coal mines?—Yes, a great deal.

693. What kind is it?—Largely pneumonia, also.

694. These coal mines are not very deep?—No.

695. Do you think they get in the mines or outside by catching cold?—Mainly in the mine.

696. Do you happen to know if pneumonia is common in coal mines in other countries, for instance, England and so on?—I think not, comparing the figures in my mind. There is one thing I should like to explain. In the coal mines we get a particularly poor class of boy. We seem to get the rejected boys from the other mines in the north. These coal mines are not so popular as the diamond mines.

697. Have you any idea of the death-rate in the coal mines as distinct from the diamond mines?—It is rather higher, but pneumonia is not quite so prevalent in proportion to other diseases.

698. What diseases?—To a large extent, phthisis and kindred diseases, lung troubles.

699. When the natives go into these compounds are they allowed out or are they kept there until they depart?—What we refer to as the compound system covers anything inside the fence, which may represent miles and miles. At Jagersfontein the boys may have to walk a mile or more to go to work.

700. What is the right term for the place where the native lives?—Well, that is the compound. The compound system contemplates the whole mine area.

701. I am referring to a piece of ground about four or five acres with a high wall around and defended gates where these men live?—That is the compound.

702. Are those people ever allowed outside that place during their term of service?—They are never allowed outside the fence. They are allowed outside their living places because their work lies outside.

703. As far as I could see at Kimberley they go to their work through tunnels?—Those who work underground do, but 60 per cent. are employed on the surface and they can go anywhere.

704. They are never allowed to bring their families with them?—No.

705. They live in a state of celibacy during their period of service?—Yes.

706. **(Mr. Lorimer.)** I want to ask this one question. Does the fact that the boys at Jagersfontein have access to drink make any difference in their attendance in the mines?—No, they do not have access to drink. I believe that in Basutoland, and in the native territories generally, it is considered an advantage to come to a mine where the boys are not allowed to have drink; that is why so many like Jagersfontein, and it is exceedingly popular for that reason. A boy goes home with all his money.

707. Do they not get any drink at all?—No, none at all.

NATAL.

Durban, Monday, 23rd March, 1914.

Mr. Maurice Smethurst Evans, C.M.G., called and examined

(*For evidence of this witness on "Land Settlement and Irrigation" see p.* 36 *of* [Cd. 7706.])

708. **(Chairman.)** You have had a large experience of native labour. What is the cause of the apparently chronic deficiency of native labour in Johannesburg?—Well, I suppose that under our present system there is not enough to go round. Wherever native labour is used there is a tremendous wastage.

709. That is to say, native labour is used extravagantly?—Yes, this low-priced labour is used extravagantly, and, besides that, the native will only work for a short spell at once.

710. Are adequate attractions given to bring out the latent supplies of native labour?—They have recruiters all over the country, and they do their best to take the labour there; but my own opinion is that when they get them there they do not use the inducements they might to get the best out of them.

711. In what direction do you think they could get better work out of the native?—You will find the piecework system on the Rand is limited, in the case of natives, to a certain sum per day. They cannot earn as much by piecework as they might otherwise do. That is one direction in which they might be improved. There is an artificial limit of 2*s.* 3*d.*, I think it is, per day. If that labour was used to better advantage, I think they could do with fewer boys and the native labour would be more efficient. And in other ways it could be improved too.

712. **(Sir Jan Langerman.)** You say the native is limited in regard to his earning capacity?—Yes, on the Rand.

713. But is it not a fact that a native gets a certain amount if he puts in a 30-inch hole, and he can put in as many more inches as he likes, and he gets ½*d.* or 1*d.* an inch more?—I think, if you will make enquiries on that point, you will find that the practice varies on different mines, and that on some mines, if the native drills beyond 36 inches—if he drilled, say, five inches more—he would not get anything more for it. There is another point, and that is in regard to lashing and tramming and machine drilling. There the position is different. If the average boy's earnings on any mine exceed 2*s.* 3*d.* per boy, that mine is fined.

714. Fined by whom?—By the Transvaal Recruiting Association. They cannot give those boys more than an average of 2*s.* 3*d.*

715. **(Mr. Campbell.)** Does the dangerous and unhealthy character of the work on the mines at Johannesburg affect the supply of labour for the mines from this part of the country? Do the natives recognise that it is unhealthy to follow that occupation, and avoid it in consequence?—Well, they certainly regard it as unpleasant and are not fond of it; but I do not think the fact that it is unhealthy weighs very much with them. They have not recognised the seriousness of it, and investigations have not been very close among the natives. I do not think it has had any very serious effect so far, though it may, of course, prove to have such an effect in the future.

716. Other mines, like Kimberley, have no difficulty about black labour?—No, one reason being that they do not limit the boys' earnings. They can earn as much as they like at De Beers, and at the present moment the boys are paid according to what they earn. They can earn as much as 5*s.* or 6*s.* a day. On the Rand, on the other hand, they cannot earn more, on the two principal kinds of work that I have mentioned, than 2*s.* 3*d.* a day.

717. You think that has demonstrated that the offer of higher wages to the native workers attracts labour to the mines?—That is not offering a higher wage: it is allowing them to earn as much as they can.

718. Does it not mean the same thing? They can earn more at Kimberley and that attracts them more than Johannesburg?—Yes, the opportunity to earn more. But you broadened it more—you said the offering of higher wages will attract the natives more.

719. Yes, and you put it that the opportunity to earn higher wages attracts them to Kimberley rather than to Johannesburg?—Yes; there are circumstances, however, affecting higher wages that would not take a boy out. It would not have the same effect as on white men. Higher wages individually would certainly call out more boys, but not so many as in regard to white men, because the native has smaller wants. He argues that he has enough and, therefore, why should he work more?

720. And you put down the attractions of Kimberley to the opportunity to earn more money?—Yes.

721. **(Mr. Sinclair.)** Does separation from their homes and families keep supplies from Johannesburg?—Not more than in Kimberley. They are separated just as much there. Of course, they never like to leave home, but they have to. It is not that.

Mr. J. T. Williams, Managing Director of the Natal Navigation Collieries and Estate Co., Ltd., called and examined.

(*For evidence of this witness on "Railways, Harbours, and Bunker Coal," see p.* 125 *of* [Cd. 7706], *and for a statement furnished by him as to the Natal coal industry, see Appendix III p.* 148 *of* [Cd. 7706].)

722. **(Chairman.)** According to your memorandum* an adequate supply of native labour is necessary to increase the output of the Natal coal mines. What is the present position as regards native labour?—The actual labour consists of 545 whites, 3,773 Asiatics, and 7,376 natives. A few weeks ago the Native Labour Department wanted to know what was the number we would require to deal adequately with the coal industry. The replies received included all the Natal collieries and showed that we wanted 11,000 as against 10,000 at present, or in other words there was a shortage of about 4,000 natives or other coloured labour to deal with the normal output.

723. Do your native labourers stay on the mines for a longer period than at Johannesburg?—No, they observe very much the same custom in that respect. They usually contract for six months, rarely for longer periods. Sometimes natives will contract for twelve months, but we often accept them for four months.

724. Do they live in the compound or in their own huts?—Mostly in the compound, but we find it an advantage to build a number of huts on the mine so as to encourage the natives to settle on the property. One colliery that I am referring to has about 30 of these huts, and another colliery has about 20, and so on.

725. Do you get married natives to remain for longer periods than six months?—Yes, their stay is indefinite, but we have not very many.

726. But assuming that you had adequate housing accommodation for them would a large proportion of your staff remain on permanently?—Yes, but then the question of capital expenditure arises. The collieries cannot afford to provide separate quarters for all the men that work.

727. What is the cost of native huts?—I think some of our huts were built by contract for about 15*l.* each plus stores, or total about 30*l.* each.

* Appendix III; p. 196.

728. What amount of efficiency do you get from natives remaining on instead of changing every six or nine months?—I do not think I could state that in figures, but I would put it in this way. That if you have a native coming under contract for six months, for the first month or the first two months he is not of much use, his efficiency shows itself during the last three months of the period; so that whatever length of time he serves, for the first three months his efficiency is not very great, although it is increasing.

729. In the case of short contracts, do a large proportion of men who sign on consist of men who have been there before or are they largely fresh men?—Many of them have been at that colliery or another previously, but, of course, a large proportion are fresh men.

730. Cannot you state what the proportion of new engagements is to re-engagements?—I cannot state that off-hand.

731. **(Mr. Sinclair.)** You suggest that you require, for the full normal output of your present collieries, about double the number of natives you have now?—I think 50 per cent.

732. You say that for the full normal output the number required is over 14,000 and you have now some 7,000?—There are the Indians also to be added.

733. Asiatics (*i.e.*, Indians) are 3,773?—Yes, our total supply is now between 10,000 and 11,000, and the mines say they want 14,000, including Indians.

734. The mother country sends large coal supplies, does she not, to South America?—Nearly all the supplies of coal come from the United Kingdom.

735. Any portion of that trade which you might obtain by the fuller equipment of your mines in the way you suggest would come into competition, would it not, with the coal which is now sent from the mother country to South America?—Yes, practically.

736. That coal is mined by white labour at high wages?—Yes.

737. Is that the sort of development that you look for in the future if you can get a sufficient number of native workers?—We look for trade anywhere just as the United Kingdom looks for trade anywhere. They come into our market at Cape Town and they come into our market in other parts of the world.

738. They send their coal mined under the conditions that obtain in the mother country?—Yes.

739. **(Sir Alfred Bateman.)** How do you work your mines—with one shift or two?—With one shift.

740. Are the hours limited by law?—Yes. The shift is ten hours. For Indians it is nine hours with one hour off for meals.

741. How many more natives do you require to increase your output by 50 per cent?—About 4,000.

742. How much would that increase your output by?—That would increase it at least 4,000 tons a day—on the basis of a ton per man, and getting the maximum output from the existing boys.

743. **(Mr. Campbell.)** When you speak of the recruitment of native labour costing so much, what system of recruiting labour have you in mind?—In regard to the indentured Indians, that is all arranged by the Indian Immigration Board.

744. But labour within the Union?—All mines in Natal have their own recruiters. There is no organization acting for the industry collectively.

745. Is there no recruiting agency in existence now?—I am not sure whether there was not an agency formed the other day for a special purpose, but, as a matter of fact, there has not been an agency working for all the collieries.

746. Have you always been your own recruiters?—Yes, always.

747. Then the cost, of course, is simply made by yourselves. There is no one who is exacting any charge on the Company?—Yes, by ourselves, certainly. But the price is determined by what the recruiter can get from another colliery for doing the work.

748. It is just a matter of the necessary expense of the labour; you are not complaining about anybody outside the companies themselves?—There is no organization acting for more than one colliery, but we get our labour by recruiting agents working for individual mines—not a labour association—so the cost of labour depends on what we have to give these recruiters.

749. Is there an organized recruiting agency working throughout the Union for the purpose of supplying labour to the mines?—Yes, to the Rand Gold Mines. It is called the Witwatersrand Native Labour Association. They have recruiters right through the Union, and it is the competition of their labour which makes our costs so high. We have to pay recruiters practically the same rates as the Transvaal mines pay theirs, otherwise they get preference.

750. With the recruiting agencies at work, are their recruiting costs as great as yours, or less?—I think they are greater.

751. I suppose they have to get their labour from a greater distance?—Yes, and have highly paid men and a very widely spread organization.

752. And that is the reason you would give for the shortage in the supply of your labour—namely, the competition of the Transvaal gold mines?—Yes.

753. Do they pay higher wages?—Yes, not only to recruiters, but also to the boys themselves. They also have access to areas from which we are prohibited. For instance, the Transvaal can recruit in Natal for work on the mines in Johannesburg, and we cannot recruit in the Transvaal for work in Natal mines.

754. What is the reason for that restriction?—It is owing to the way the Native Regulations are carried out.

755. Is there any reason for those Regulations?—I suppose they want to preserve an adequate supply for the gold mines.

756. Who puts the Regulations into force?—The Native Labour Department put them into force, based upon their Act, which regulates recruiting for native labour. At present we are in constant communication with the Native Labour Department, and one of the suggestions we are making is that the Transvaal should not be allowed to come into Natal to recruit for the gold mines, and that Natal should be free to recruit solely in Natal themselves.

757. That is to say, let each Province of the Union depend on its own resources for its native labour supply?—Yes. I do not think they will agree to that, but I think it will be found that they will meet us to some extent by restricting the area within which recruiting for the Transvaal will be allowable. We know, for instance, that they stopped two districts on the north and south coast of Natal for recruiting from Natal for outside the districts, and those are now confined particularly in the interests of the sugar industry.

758. Would you have a sufficient supply of labour provided you were dependent on Natal alone?—If you include Zululand and Natal, I think we would. The figures show that to-day there are 16,000 natives from Natal and Zululand in the employ of the gold mines on the Rand. If those were available for Natal industries only, I think it would be found that we would have about enough. That would considerably help our local industries.

759. Is Basutoland drawn on for labour?—Mostly by the Transvaal.

760. There are no restrictions, so far as Natal is concerned, in regard to Basutoland?—No.

761. As between the imported Indian labour and the native labour, which is the more efficient?—Native labour, as a rule, is more useful for the mines, although, as far as efficiency goes, the indentured Indian is a very useful man. His physical strength is not to be compared with that of the native. For underground work the native is practically indispensable. Speaking of the collieries where the trucks are supposed to carry a certain quantity down below, the Indian cannot push them, although the native can do so quite easily. In other work, again, the Indian is the more useful. In regard to machine work, for instance, the Indian is more useful than the native because he is more adaptive and more intelligent.

762. **(Mr. Lorimer.)** How long does your coal stand in bin without firing?—It depends on the coal.

763. Some of it is very sulphurous?—A very small proportion.

764. Has it improved of recent years in that respect?—The percentage of sulphur coal is very much less than years ago.

765. Because I remember having a very curious experience, over thirty years ago, of the extraordinarily destructive effect on copper that it had, and people wrote about it, and I suggested that probably the coal was very sulphurous, and that it would be well to analyse it. It was analysed, with the result that there was a terrible percentage of sulphur. That was a new colliery, and probably the coal is better now?—Broadly speaking, about thirty years ago there were only one or two collieries in existence, and apparently an unfavourable report in regard to one colliery you are referring to kept back the whole industry for years, whereas later we found that the coal contained a much less percentage of sulphur.

766. Is there any of it that requires to be coked in order to make it useable?—There is no coke made in Natal to any extent—only a few hundred tons a month.

767. Then the coal must be better than it was before?—Yes.

768. **(Sir Alfred Bateman.)** Do you have a great deal of smalls lying at the pit?—Yes, the tonnage of smalls is very considerable, owing to there being no market for the dross or duff coal, as it is called. All coal sold is of the size of peas, nuts, or large coal. There are only one or two customers who use dross coal, notably the Durban Corporation.

769. There is no way of utilizing it?—No, not at present.

Pietermaritzburg, Friday, 27th March, 1914.

Mr. David Forbes Forsyth, B.A., Chairman, and Mr. Robert Dunlop, Secretary, of the Pietermaritzburg Chamber of Commerce, called and examined.

(*For the evidence of these witnesses on "General Trade Questions," see p. 171 of this Vol., and on "Steamship and Cable Communications," see p. 80 of* [Cd. 7706].)

The following Memorandum was handed in by the witnesses:—

Iron.—The most important of all latent industries is that of the development of the iron ores that exist in the vicinity of Maritzburg. There are three kinds of ore to be found in the district, viz.:—

(1) Very pure hydrated sesquioxide, the analysis of which is as follows:—

Iron	62·0	per cent.
Silica	2·75	,,
Lime, &c. ...	trace	

This ore is found at an elevation of 3,500 feet. As in Spain, the Forest of Dean, and elsewhere, this ore is patchy, the ore bed being fairly continuous, but varying in thickness from 4 feet to 1 foot. Outcrops can be traced for about 30 miles.

(2) Manganiferous Hæmatite, the analysis of which is as follows:—

Iron	50·0	per cent.
Manganic Oxide	2·36	,,
Phosphorus ...	0·30	,,
Silica	6·08	,,

This is found at an elevation of 2,250 feet, in the lower carboniferous formation, ecca shales. There are a number of veins varying from 6 feet to 1 foot in thickness. Millions of tons of this ore could be got easily and cheaply.

(3) Brown Hæmatite, the analysis of which is as follows:—

Iron	35·0	per cent.
Silica	30·5	,,
Alumina ...	10·30	,,
Phosphorus ...	0·14	,,

This ore is derived from the decomposition of the beds of manganiferous hæmatite, the shales having been washed away, the broken ore has collected on the flats, and has been cemented together again by the product of its own decomposition. There are very large quantities of this ore. The average cost of ore at furnace would be under 5*s.* per ton. Experimental work has been carried out in smelting ores with a blast furnace. The coke used was prepared from Natal coal, and coke is now being produced of excellent quality and fit for the best foundry work, the percentage of ash and sulphur being, ash 9·20 per cent., sulphur 0·90 per cent. The lime used for flux has been obtained in the Province of Natal, but owing to its distance from the iron and coal beds it has been rather expensive. Abundant supplies of excellent lime exist in this Province, but are situated a considerable distance from a railway line. The materials for furnace use, such as fire clay, ganister, &c., exist in large quantities in this neighbourhood, and a small company has successfully experimented with local ores, mixing them together and producing a good foundry iron, which drills and files easily. As the blast furnace for this experiment was working by day only, the iron only lightly carburetted. Careful calculations show that the iron can be produced at a cost which would enable it to be sold as pig-iron at a price under that of the imported article. The establishment of a foundry for the production of castings, which are now imported at a cost out of all proportion to that at which they are invoiced by the manufacturer, should be a very profitable business, when one takes into account the bulk and consequent heavy freight, and liability to breakage in transit of imported castings; such articles as water pipes, plain iron columns, telegraph and telephone poles, &c., can be made here at a price considerably lower than those articles can be imported for. It will be necessary, however, in order to establish such an industry, to employ skilled workmen from England or Scotland. The potentialities of a base metal industry like iron are immense, and it is hoped that the wealth of this industry will soon be developed.

770. **(Mr. Lorimer.)** I am rather interested in what you say about your iron ores. I hope to see one of these fields to-morrow, but some of them, from what you say, look well and some of them are not so valuable. The analysis is not so complete as I should like to see. Can I get a complete analysis of these ores anywhere?—**(Mr. Dunlop.)** I can give you an analysis obtained from the Imperial Institute, London. I have also some samples here.

771. Has the Imperial Institute had samples sent to it?—Yes, samples of the second ore, and the first analysis is by Messrs. Brown and Company of Leeds.

772. You have given me three, one has a very good percentage of metallic iron, that is the first one. But the analysis practically stops at that. You give silica $2\frac{3}{4}$ per cent., but no more, and in the next one there is also a good percentage of iron and the phosphorous is quite moderate and the silica. But I want to know a little more about it. In respect of the third sample, the percentage of the metallic iron is very, very small, but the percentage of silica is enormous, so we cannot make much use of that, but the other two I should like to see a fuller analysis of. Can you get me that?—We will try to-morrow.

773. To whom do these outcrops belong. Are they the property of the nation?—No, they are mostly held by private individuals.

774. And have you any idea whether these people would allow these outcrops to be worked?—They would be very pleased, indeed, in most cases, I think, to have the deposits worked on a royalty basis.

775. Because in Durban the other day we had a proposition of this sort made to us and it was withdrawn on the ground that the owner preferred to farm his land rather than allow it to be worked as an iron mine. That would not be the case here, you think?—No. We have already very considerable areas under option. At the present time the attention of some London financiers has been directed to these iron fields, and cable negotiations are going on this week in regard to them.

776. Have you any foundry in the Union at all?—Yes, we have several, especially on the Rand.

777. But none in town here?—We have foundries in Durban. There is a foundry in connection with the railway works, and a very good one it is.

778. But, for general customers, is there or is there not a foundry?—There are several small foundries for general work.

779. Have they to import all their pig iron?—Yes. All the pig iron they use is imported and so is the coke, or it was until just recently. The Government themselves are the biggest sinners in that connection.

780. Do you not make coke from Natal coal?—Yes, we do.

781. Would they not buy that for foundry purposes?—They buy very little; I presume it is because of the larger percentage of ash in South African coal in comparison with imported coal.

782. I had some experience myself many years ago in regard to Natal coal, which was disastrous to use on account of the sulphur it contained.—That may be.

783. Now, is the coal coked in ovens or in the open?—In ovens, and these have been very much perfected recently with the object of getting rid of the sulphur.

784. And is this sulphur practically eliminated?—The figure now is 0·90. As you may be aware anything under 1 per cent. is admitted by iron founders to be a negligible quantity.

785. What can you sell it at?—Natal No. 1 foundry coke is sold in Johannesburg at 4*l.* 15*s.* a ton.

786. What would you sell it at in Durban?—The price would very greatly depend on the purpose for which it was wanted.

787. You know you can get first rate coke at home for 25*s.* a ton?—Yes, it is 24*s.* 9*d.* f.o.b. Sunderland.

788. And what is the freight?—The freight is 37*s.* 6*d.*, I think.

789. That is 3*l.* 2*s.* 6*d.* and you want 4*l.* 15*s.*?—It is a very bulky freight, it is a measurement freight, it is not avoirdupois. All the coke imported here, or most of it, comes out in tramps or wooden bottoms.

790. At what price could you afford to put it on trucks here for foundry purposes?—About 45*s.* or 42*s.* 6*d.*

791. What makes it so dear when your coal is only 10*s.*?—In the first place Natal coal is very much dirtier than Welsh coal or Durham coal. We usually have to have at least three or four washings. The result of that is that to make a ton of coke you require to use over 1½ tons of coal, and then the difficulty in the coal fields has been to obtain an adequate water supply. The best coke made in the Colony to-day is made near this city, and the coal is actually carried down from the pits and a carriage of 7*s.* 9*d.* a ton is paid on it. Half a ton of every ton of that coal is wasted in washing, and yet the coke is returned and sold in Johannesburg and competes with imported Durham coke, which, I may say, goes to Johannesburg via Delagoa Bay, and is sold in Johannesburg at 7*l.* 15*s.* per ton for No. 1.

792. And what is the comparative value of yours and theirs. I won't encourage you to say it is just as good, because I suppose it is not?—Well, I am not going to say it is any worse, but for all foundry purposes it serves the same purpose as the imported coal, but one can conceive that there may be cases where it would not be quite so suitable.

793. What do they use it for?—They use it for amalgamating and smelting and all ordinary foundry purposes.

794. They do all their smelting with coke? Yes, mostly.

795. It looks as if you should be able to develop your business with the imported coke at 7*l.* 15*s.*, and if you have something equally good you can deliver at 4*l.* 15*s.* you have a considerable margin to work upon and you do not want any help from us from that point of view?—No, except in connection with the flux for the iron smelting. We have had considerable difficulty in getting a suitable flux. We have Natal lime, but, as I have pointed out in the report, it is a very considerable distance from the railway, and the Government has not looked on it with favour sufficient to extend a branch line in that direction.

796. Is there no railway to-day?—No, the lime we are using at present, and a sample of which I will show you, is brought from Port Shepstone, on the south coast of Natal, and thence to Maritzburg by rail.

797. What does the freight cost? What would it cost to bring it from the mine here?—I think about 8*s.*

798. I suppose you have made a good many researches to see if you can find something nearer to hand?—Yes, we have found some very good lime in Umvoti county, but we cannot get the railway to it. There are some valuable deposits there which have not been developed.

799. Then you have all the elements for successful working of this iron ore within your reach?—Yes.

800. **(Sir Rider Haggard.)** About this coke—would it not be possible to establish coking works close to the mines? Would there be any possibility of reducing the enormous cost of this manufactured coke?—Is it enormous—I am not so sure of that.

801. Well, it is enormous compared with English prices?—But it must be remembered that in England this coke is produced by recovery plants. It is returned to the colliery as a free gift. The coke is handed back to the colliery people in recognition of the fact that the man who makes the coke obtains the by-products, such as tar, benzol, and other things. In this country we have not got recovery plants at present. There is a company called Ammonium, Limited; this company has just been formed in London with a capital of 325,000*l.*, and I understand that Messrs. Brunner Mond and Company are connected with it. It is for the purpose of establishing by-product plants on the Vryheid coal fields, where they are going to produce sulphate of ammonia. Whether all the coke which they make will be marketable or not I do not know, but I do not think it will be marketable as foundry coke.

802. As I had the opportunity of seeing the other day, you can put out the coal at anything from 7*s.* to 5*s.* per ton?—Yes.

803. And the difference between that and the price of 4*l.* 15*s.* is very considerable?—It is delivered in Durban at about 47*s.* 6*d.*

804. But the difference between 47*s.* 6*d.* and the figure I mentioned just now is very great? Yes, the distribution costs at Johannesburg are very high.

805. You talked of the waste through washing, but even supposing there was waste through washing, the initial price of the coal is very small?—You are referring to the coal fields, not to the coke manufactured near here.

806. No, I am referring to it being done on the most economical scale and at the most economical place?—I admit it is a foolish thing to try to defend the practice of bringing coal down here and sending it back as coke, but there are extenuating circumstances in favour of continuing that course. The coking business in this neighbourhood was started with the primary object not of making coke for general purposes, but of making a coke suitable for using with local ores for smelting purposes at the present works.

807. I am only asking this question because it seems to me that, as coke enters largely into the necessary preparation of iron and so forth, it does not look as if you had much prospect for the iron industry unless you can bring down the price of coke.

808. **(Sir Alfred Bateman.)** You have had a report from the Imperial Institute, you say. Was that in connection with the work done for the Iron Trade Association some years ago, where ores were obtained

and sent home for report? Did you have anything to do with that?—No, I was not interested in that, but I have some samples of ores here, which are referred to in my statement, if anybody wishes to see them.

809. I think you said that only one was reported on?—The first ore is reported on by Messrs. Brown's Armour Plate Company, of Leeds; No. 2 by the Imperial Institute; and No. 3 by the Government Analyst in Natal, Mr. Neville.

810. The third one has not been sent home?—No. Not by me, at all events. These ores have all been reported on favourably years ago by Mr. North. You will find these reports confirmed by him, and you will find Dr. Hatch's report on the mineral resources of Natal. He gives the first sample a higher percentage of iron even than the Imperial Institute.

811. You know that the Imperial Institute do this work free of charge for the Colonies? I was not aware of it.

812. It would be your best plan to obtain reports from the Imperial Institute on any similar ore which you may have. They will be pleased to make reports of this kind at any time?—Thank you.

813. **(Mr. Garnett.)** Could you tell us what the production of South African coke is?—I am afraid not, at the moment, but I could give you the figures this afternoon.

814. Because, if Durham coke is sold at 7*l.* 15*s.* and has to be imported at that figure and you can put coke in Johannesburg at 4*l.* 15*s.*, it would seem that there must be a considerable field for the extension of this business, always assuming that price for price your South African coke is capable of producing as good results?—Yes; I did not say that.

815. No, you were careful to say that you were not in a position to state whether your South African coke could be used equally advantageously as the Durham coke. I find that 29,131 tons were imported, of which 29,000 tons came from the United Kingdom—50 tons from Belgium and 42 tons from Germany. You cannot tell us what your production is?—The production in Natal for last year was between 7,000 tons and 8,000 tons. Our coke is not being used for purposes yet that imported coke is being used for.

816. Are you confident that you have the class of coal that can make coke equal to the Durham coke?—I am confident that we have the coal in Natal, if it is properly handled, and we are hopeful that with the interest now being taken in the matter of by-products and with the highly technical men coming out to work these bye-product plants a great advance will be made in this direction, and, later on, we will be able to stop the importations.

817. You are losing all the residuals at present?—Yes.

818. **(Sir Alfred Bateman.)** In regard to this coke is there much extension of gas-making?—There is no gas-making that I know of. I think there is only one town in South Africa where they have a gas-producing plant, and that is Port Elizabeth. I do not know of any other.

819. They have never tried to do it in connection with this coke question?—No.

820. **(Mr. Lorimer.)** Suppose we found that there were very large quantities of high-class iron ore throughout the Union—far more than you can utilise yourselves for a very long time; would your Chamber want to keep it to themselves, or would you approve of exporting it as ore? We have gone into the question of the possibility of Natal ore competing with Spanish ore at Middlesbrough, but, as you know, 50 per cent. Spanish ore to-day at Middlesbrough is fetching from 21*s.* 6*d.* to 22*s.* 6*d.* We could not land Natal ores with the present freight of 12*s.* 6*d.* in Middlesbrough for 22*s.* 6*d.*

821. I quite realise that there are plenty of places where you want railways in order to take the ore to the ports.—Yes.

822. No doubt the Government might entertain favourably the possibility of building a railway if they saw a large traffic ahead of them. Then, of course, in addition to that, there is the question of sea freight, and that, while it would vary from time to time, would add considerably to the cost, and so the whole thing would depend on the quality of the ore. Your inferior ores it would be impossible to export. The high-class ores you might?—Yes.

823. They are becoming scarce, and as they become scarce they rise in value, so that you could look to get better prices for your high-class ores now or in a few years hence than, say, twenty years ago?—Yes.

824. But you are prepared to entertain the idea of shipping?—Yes, if the ores are not going to be smelted here. But if we are going to smelt here, we do not want to export all our high-class ore, because we are mixing our ores in three equal parts.

Mr. John Thomas Audas, Head of the Administrative Branch of the Mines Department, Natal, and Mr. F. A. Steart, Inspector of Mines, called and examined.

825. **(Sir Alfred Bateman.)** You hold an office in the Administrative Department, Mr. Audas?—Yes, I am the Head of the Administrative Branch in Natal.

826. And you, Mr. Steart?—I am Inspector of Mines, stationed at Dundee, in the coal district.

827. What you propose to give, I understand, is evidence entirely about the mining industry in Natal. Could you give us a short account?—The mining in Natal is principally confined to coal. The other mining has not yet been established on a sound basis, and it is mainly in the prospecting stage. We have a gold output, but it is very small. In regard to the coal, the information I have deals with the coal output from 1889-1913. In 1889 the output was 25,609 long tons, and the value 12,805*l.* The output increased annually up to the time of the war, when it reached 387,811 tons.

828. Is that for 1898?—Yes. The value then was 175,015*l.* During the war, of course, the output decreased. It went down to 241,330 tons.

829. We have had from the Coal Owners' Association in Durban a good many figures as to the extent of the industry, the numbers employed, and that sort of thing?—I was giving a statement just to show the wonderful advance that has been made since the war. The tonnage in 1898 was 241,330. Now, at the end of 1913, it has reached an output of 2,588,148 tons, valued at 868,185*l.*

830. What does that work out at per ton?—About 6*s.*

831. What is the present selling price?—The contract for coal for 1913-14 is—for export, 14*s.*, 15*s.*, and 15*s.* 6*d.*, according to the quality of the coal supplied. Of course, it should be noted that coal in Natal varies very much in quality.

832. But this has got the railway charges on it as well?—Yes, everything. That is delivered on the ship at Durban.

833. But the railway charge is about 5*s.*, is it not? You have nothing to do with those charges for shipment or railage, have you?—Well, we could give them.

834. We have had them already from the Coal Owners' Association and we won't repeat them, unless you have some special views you would like to give the Commission?—No, I do not think we have any special views on that point.

835. Then you do not enter into that question about the competition between the Transvaal and Natal coal at Cape Town?—Of course, we have our private views about that, but I do not think that we as officials should give those.

836. In regard to the conditions of the industry, you must have some valuable information on that, have you not?—The conditions of the industry greatly improved up to the date of the coal strike at the end of 1913. The conditions of coal-mining at that time had reached a position higher than they had ever reached before. That is to say, the selling price of the coal had risen to what was considered a very satisfactory figure, and the demand for the coal was actually greater than the output.

837. How was that?—The whole of the coal up to the time of the strike was sold, and I believe that the present glut is only temporary, and is due to the boats which took regular supplies from Natal going elsewhere on account of the strike.

838. Then, you think there is every chance of the demand for Natal coal increasing?—I think so.

839. Do you think there is likely to be an increase for internal use?—**(Mr. Steart.)** Yes, a small increase, I think.

840. If you get these manufactories either at Durban or here you will want coal?—Yes, I think so. **(Mr. Audas.)** We were depending on local consumption practically ten to fifteen years ago. It is only of recent years that we have had this big shipping trade.

841. You have now a big shipping and bunkering trade?—Yes, and export, of course.

842. Do you consider that Natal coal is of good quality?—We have had it tested, and our tests showed the coal to be equal in many respects to Welsh coal. Of course, it is not so clean.

843. It is very dirty?—Some of it, but, of course, we take great pains in washing it.

844. Then, what other information is there that you think would be useful to us?—It might be of interest to know the conditions under which coal can be acquired and the royalties paid on coal properties.

845. Yes, I do not think we have had that information very satisfactorily given as yet; could you just give us a short statement?—Previous to Union, all minerals mined in Natal had to pay a royalty of 1½ per cent. to the Government on the value of the output. When Union took place, the Profits Tax Act was passed, and this meant the payment of a percentage of the profits. It is on a sliding-scale basis, and varies according to the profits earned. I think if a colliery or mine pays less than 5 per cent. they do not have to pay Profits Tax, and after 5 per cent. dividend they pay a Profits Tax varying from 2½ per cent. up to 20 per cent., or whatever the earnings of the mine in dividends are.* Title to the coal is acquired here by the taking out of what is known as mineral claims. These mineral claims are approximately of 100 acres.

846. Can anybody take out a claim?—Yes, anybody can take out a claim. The claim is acquired by a person applying for a licence, and then he pegs off his claim. He first of all takes out a prospecting claim, which costs him 4*s.* a year for his licence, for 100 acres, and after it is prospected he has to convert into a mining claim before he can extract minerals for sale. The mining claim licence costs 2*l.* per month.

847. Is that for all minerals?—No, that is for coal. For other minerals the area is 18·595 acres taken out on the same basis.

848. That is including iron ore?—Yes. Of course, all minerals are reserved to the Crown, but in some cases the Government has not got the right to the coal. Some old titles were issued in which coal was not reserved, and in these cases the owner of the farm owns the coal. But coal can be taken up on private lands by the procedure I have just explained. Of course, everybody cannot get a licence for private lands. The circumstances would be taken into consideration, and the Minister has the right to refuse a licence or grant it as the case may appear to warrant.

849. If a licence is taken up on private lands, there are three parties to the profits, I suppose, the State, the original owner of the land, and the licensee?—Yes, quite so.

850. Could you give us any idea what proportions are allowed to each of those three parties?—The licence fees that are paid to the Government, and the profit tax collected from the mine, are divided with the land owner and the Government. Of course, the miner gets the remainder.

851. If a man has got a good farm, or good land, would it pay him as a rule to have his land used for coal?—It would, of course, all depend on the value of the coal and the value of the particular farm.

852. Well, it means interfering with his own use of it?—In coal-mining, of course, they do not break up the surface very much, but the establishment of a colliery on a farm interferes considerably with the use of that farm, owing to the number of labourers crossing the surface. But he has compensation. I might say that the major part of the coal is mined on land which the Imperial Government had reserved in the early days as far as the sole rights to coal were concerned, and the land was sold with this reservation, and the owner when taking up that land knew he had no right to the coal, but for many years the law was not put into force—in fact it was not put into force up to the time of Union. When the Union Government put this law into force, many farmers had utilised their land as though they had the full rights to coal and had leased the coal, but, of course, when that law came into force they had to come under it, and they are now only entitled to the dues that are payable under the law. I might say, in this connection, that all the old leases, as far as I know, entered into between coal miners and private owners are still in existence. The coal miners have not disputed their liabilities under these leases, and they still continue. Many persons make it a practice at the present time to enter into leases with farmers with the object of acquiring large areas. The reason for that is that only a limited number of licences—that is, four licences—can be issued to any one person for a farm, and if a farm is of 2,000 acres, only 100 acres can be granted to an outsider, and the owner has the right then to select the remainder, or to peg it out if he likes.

853. If he had half a dozen children, could he put them in?—He has no need to if it is his own land.

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* The witness subsequently furnished the following extract from the Mining Taxation Act of the Union, No. 6 of 1910:—

MINING TAXATION ACT.

Taxation on Profits of Mining.

3. There shall be levied annually a tax:—

(*a*) On the profits of mining for diamonds, 10 per cent.;
(*b*) On the profits of mining for gold, 10 per cent.;
(*c*) On the profits of mining for other minerals, according to the following scale, that is to say—

Scale.	*Rate of tax.*
If the amount of profit do not exceed 5 per cent. of the gross revenue derived.	2½ per cent. of the profits.
If the amount of profit exceed 5 per cent., but do not exceed 10 per cent. of the gross revenue derived.	3 per cent. of the profits.
If the amount of profit exceed 10 per cent., but do not exceed 15 per cent. of the gross revenue derived.	3½ per cent. of the profits.
If the amount of profit exceed 15 per cent., but do not exceed 20 per cent. of the gross revenue derived.	4 per cent. of the profits.
If the amount of profit exceed 20 per cent., but do not exceed 30 per cent. of the gross revenue derived.	5 per cent. of the profits.
If the amount of profit exceed 30 per cent., but do not exceed 40 per cent. of the gross revenue derived.	6 per cent. of the profits.

and thereafter for every additional 1 per cent. of profit an addition of one-tenth per cent. to the rate of the tax.

854. But if it is other people's land?—It is according to whether they fulfil the requirements of the law. They would require to be over 16 years of age.*

855. Now, are the figures about the coal production, values and so on, official?—The figures I have given are official.

856. We had figures given by the Coal Owners Association?—I think those were supplied from the Department.

857. You think they are reliable?—I do not know so much about mine—I only had a very short time to get them out.

858. Does each coal owner make a return to you?—They do make returns. The returns up to the time of Union were made to the local department, but the whole administration of mining is now under Union, and a department in Johannesburg under the Government Mining Engineer deals with returns and statistics.

859. We shall get all those statistics for Natal up there?—Yes, quite so.

860. **(Sir Alfred Bateman, to Mr. Steart.)** You have some information, I think, about the extent of the seams, the formation, and so on?—**(Mr. Steart.)** Yes.

861. What is your general thesis?—If this is any use to the Commission, I have here a statement that was got out for the Geological Congress in Canada last year, showing the areas of the various coalfields in Natal and Zululand, and the approximate tonnage. I do not know if it would be of value.

862. We shall be very pleased if you will put it in?—I will put in a copy of it.†

863. Could you shortly describe the general geology of the coalfields in Natal?—Well, personally, I am acquainted more particularly with the Klip River coalfield—that is from Dundee upwards, which is the principal one, and I can give you the approximate extent of that coalfield. I have roughly marked it on the map and this may interest the Commission. It extends from a little south of Elands Laagte to Charlestown—a distance of about 70 miles.

864. And how much in width?—It is nowhere more than about twenty miles wide at the widest part.

865. Is that the principal one in Natal?—Yes, of course, that is not all good coal. It is very much intersected. It depends a good deal on the general elevation of the country, and a good deal of the area I have mentioned is below the coal horizon and contains no coal at all, and further much of it is overlaid with igneous sheets, and intersected by dykes, and is, therefore, useless on that account. The coal does not extend on the west of the main line anywhere more than ten miles from the railway.

866. Have you to do with any other minerals besides coal in this Province?—No, nothing except coal since I have been in Natal.

867. Where shall we obtain particulars of the iron ores worked?—There are none being worked that I know of.

868. Not in small quantities?—Not in my district. **(Mr. Audas.)** I could prepare a statement in reference to the iron ores and deposits. There is nothing in the way of iron developed in this Province at the present time. There are a number of known iron deposits; none of them have been developed to give any reliable information concerning their values. I suppose the furthest development that has taken place in the matter of iron is a small works outside Maritzburg where they have actually smelted and produced pig iron, and that iron has been reported on to be of excellent quality, but the extent and size of the lodes have not yet been demonstrated.

869. So it is hardly a commercial proposition yet?—No, there is not sufficient known about it, I think.

870. Are there any other minerals in Natal that are worked?—I will put in a short statement* giving the output of the various minerals covering the past three years. The gold output in Natal is small, although we have a very large area of land held for gold-mining in the country. The prospects in many cases are said to be good, but we have had very little real development in the gold industry in this Province yet.

871. **(Mr. Sinclair.)** Does this large area of which you speak comprise the bulk of the coal measures of Natal?—**(Mr. Steart.)** Yes, I think so.

872. How many collieries are being worked in that area?—At the present time, I believe there are 22 being worked.

873. All worked, I take it, by the same class of labour? The class of labour is common to all?—Yes.

874. Does this large number result in combination or competition as to price?—I suppose it does to some extent result in competition.

875. Are the prices approximately the same?—Yes, I think so.

876. Are those prices arrived at by united action on the part of those who are working mines?—Generally speaking, I think so.

877. That is to say, the price is really brought about by combination?—Yes, generally speaking. But there are some mines outside of it, I think. **(Mr. Audas.)** I have a little information about that. The coal owners formed a body known as the Coal Owners Association, which is a combination formed for the purpose of regulating the selling price of coal. It was formed about three years ago, and it is really an annual agreement. That is to say, the members meet each year and decide whether they will continue or not. I might say in this connection that since the formation of the present Coal Owners Association, they have raised the price of coal from 1*s.* 6*d.* to 2*s.* 6*d.* per ton. Of course, the price varies with the quality of the coal. Previous to that, of course, the collieries were competing independently in the market, and a number of collieries which were not producing very good coal had a difficulty in selling their output at all. But the Coal Owners Association have done away with that, and they have made the price of coal more regular, and the sale of the coal up to the time of the strike was very satisfactory, and, in fact, all the collieries were selling their output without difficulty.

878. The rise has been about one shilling a ton?—From the time that the Coal Owners Association was formed the price has improved from 1*s.* to 2*s.* per ton. I have some figures here where contracts were made in 1913 at 13*s.* 3*d.*, and the same coal is now sold at 15*s.*—so there is a rise of 1*s.* 9*d.* in the past year.

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* The witness subsequently furnished the following statement with regard to mining claims in Natal:—

Mining in Natal is administrated under Act No. 43 1899, and subject to the provisions of this Act the right to mine for and dispose of all minerals on lands situated within this Province is vested in the Crown

The title to mine is granted in the form of claims, which vary in size according to the mineral or metal required to mine. An Alluvial Claim is 100 feet by 100 feet, a Metal Claim 300 yards by 300 yards, and a Mineral Claim 700 yards by 700 yards. An Alluvial Claim is granted for the purpose of mining for alluvial or precious stones. A Metal Claim is granted for the mining of all minerals excluding alluvial and precious stones. A Mineral Claim is granted for the purpose of mining for coal, limestone, stratified ironstone, slate, soapstone, oilshale, and phosphates.

These claims are acquired by first obtaining Prospecting Claim Licences, costing 1*s.* per licence for three months, and can be obtained from any Magistrate's office, for all lands except private lands, the licences for private lands being obtainable only from the Office of the Commissioner of Mines.

An applicant for licences cannot take out more than four licences for each class of land in his own name, and such applicant must be a European over the age of 16 years. After the issue of the licences, claims can be pegged and registration applied for, the Registration fee for Prospecting Claims being 5*s.* per claim.

If each claim is worked by a European, only the Licence fee 1*s.* per claim per quarter is required to be paid during the prospecting stage, which may continue for any period up to the time outputting commences. When outputting commences the Prospecting Claim must be converted into a Mining Claim, which must be surveyed and registered. The Mining Claim Licence costs £2 per month for Alluvial and Mineral Claims, and £1 per month for Metal Claims.

If claims are required on private lands, the landowner is notified when the application for licences is made, and has the right to lodge any objections to the issue of such licences. These objections are considered and the licences issued or refused according to the circumstances. Only four licences in the first instance, can be granted to outsiders over private lands, but three months after the issue of these licences, the issue of licences to outsiders can be resumed. During this period of three months the owner has the right to take out as many claims over his property as he desires.

Mining on private lands is not permitted to interfere with any homestead, orchards, plantations, water-furrows, or cultivated lands unless compensation is paid.

The owner of private lands receives from the Government half licence fees and royalties received in connection with claims on such owner's land. All titles to land issued in Natal since 1870 contain a full reservation of minerals to Government.

† The witness put in a statement showing the estimated coal resources of Natal and Zululand to amount to 7,931 million tons.

* Not printed.

879. Have wages gone up in this interval?—Of course, the coal is mined here mostly by Asiatics and natives, and only supervised by white labour.

880. Has the cost of labour gone up proportionately to the increase in the price of coal, or is the increase in the price of coal simply the result of combination?—Well, I do not know of any increase in the price of native or Asiatic labour. I do not think the price of that has been increased, but, of course, the strike of the miners recently was due to the fact that they were not satisfied with their rate of wages. I believe the average wage was about 15*s.* a shift prior to the strike, and the men struck for 1*l.* a shift. The Coal Owners Association offered seventeen shillings, and some of the men returned to work at that rate and the others who did not return at the time are now working at the old figure, so there has been really no great advance in the rate of wages.

881. What is the length of shift?—Ten hours.

882. Worked at the face?—**(Mr. Steart.)** No, it is ten hours underground.

883. And how long does that mean working at the face?—As far as the natives are concerned they come up when their task is finished. Some of them might finish in five or six hours, but the white miners have to work ten hours from bank to bank. They do not do any actual face working. They only supervise the natives. They do little manual work.

884. What is the average cost of coal at the pit head?—I think it is about 6*s.* 6*d.* at the present date.

885. That is for the best coal, is it?—That would be the average.

886. Are any of the mines in this locality troubled with soft coal?—No, the coal is not very soft in any of the collieries that I know of.

887. They are not troubled with seams of soft coal?—No, the coal is fairly uniform. We have only two seams in the Klip River coalfield, and we have fairly good roofs generally.

888. Are there many faults?—No, there are some very big ones, but not many. But there are innumerable dykes.

889. Is heavy timbering required?—No; frequent timbering, but not heavy, is required in most of the collieries.

890. I gather that the gum is used for timbering?—Yes, but they use more wattle in the Dundee district.

891. Is it cheaper?—Yes, I believe so.

892. Are there large areas, do you think, untapped? Well, the area of the coalfield, Dr. Hatch says, is enormous, but the area of coal of good quality is, to my mind, limited.

893. In regard to the area of coal outside this limited area that you speak of, is it faulty, or inferior coal?—Much of the coal is spoilt by the intrusion of igneous sheets.

894. Would it not be workable at a profit?—No, the calorific value is very low.

895. It is all a true coal, I take it—it is not a lignite?—No, it is true coal. I can give you the analyses, if you wish.

896. You might hand it in.* Are there coke ovens at any of the collieries?—At two only that I know of.

* The witness handed in the following statement:—

Analysis.	S. end of Coalfield.	Middle portion of Coalfield.		N. end of Coalfield
	Elandslaagte, Pit No. 2.	Natal Navigation.	Durban Navigation.	Newcastle.
	Per cent.	Per cent.	Per cent.	Per cent.
GENERAL—				
Moisture	1·00	1·16	1·50	2·60
Volatile Hydrocarbons	22·54	19·90	29·06	28·96
Fixed Carbon	56·90	67·82	57·63	56·10
Sulphur	1·60	1·58	1·20	1·23
Ash	18·50	10·08	11·02	11·52
INORGANIC CONSTITUENTS—				
Carbon	65·91	78·12	69·16	65·26
Hydrogen	4·05	5·20	4·56	3·72
Nitrogen and Oxygen	8·94	6·60	12·56	15·67
SPECIFIC GRAVITY ..	1·427	1·342	1·363	1·388
Calorific power (lbs. of water evaporated per lb. of coal), as estimated by Thompson's Calorimeter.	13·32	13·80	14·46	14·31

897. Is coke extensively manufactured?—At one colliery they have 12 ovens at work and 12 at another. The average coke output is 150 tons per month.

898. Are there bins at any of the mines for storage?—Yes, I think all the collieries, with one or two exceptions, have bins.

899. In regard to coal that is supplied to the Admiralty, is it a condition of the contract that there shall be storage bins?—No. I do not think they supply any coal to the Admiralty. I am not aware of it.

900. You told us that by the strike some mines lost trade?—Yes.

901. Can you tell us whether that trade has been recovered?—The time is not sufficiently long to be able to say whether it is recovered yet, but I do not think it is up to the present.

902. **(Mr. Tatlow.)** On the whole the prospects of the Natal collieries are good?—Yes, for some few years to come, I think.

903. Have you any estimate formed as to how long a life the coal measures have here—how long the mines will hold out at the prospective rate of production?—That would be very difficult to say. It may be that some of the coals now considered useless may be used in the future for gas engines and so on.

904. But there is everything favourable at present to the business. You have a good market and a good demand for the coal?—Yes.

905. A good supply of labour?—I am not so sure of that. I think that is the great difficulty.

906. You gave the figure of the output at 2½ million tons?—Yes.

907. Has that been increasing year by year, and does it still show an increasing tendency?—Yes, the Natal output has never had a set-back except during the war. It has steadily increased, and I think it will continue to do so.

908. You have great advantages in regard to coal for bunkering, and can deliver the coal at a very moderate price. If you largely increase your trade can you find labour readily?—No, not readily, I think. I think that is the greatest obstacle to the rapid extension.

909. Given that labour you could very largely increase the business?—Yes.

910. Is there any drawback concerning the business at all—any deterrent to its expansion?—The great deterrent during the last two or three years has been the truck supply.

911. That is the question I was leading up to. Is the business of the colliery retarded at times from this cause?—Yes, very considerably.

912. You know how the trucks are kept under load at the port?—I have heard of it. I do not know the reason for the shortage, but I know it is a very serious difficulty.

913. You say that the profits are taxed; do you know what is the maximum tax on the profits?—No.

914. It will rise in proportion to the dividend that is paid by the companies, up to the maximum?—Yes.

915. Do any of these collieries pay very high dividends?—No. I do not think so.

916. **(Mr. Lorimer.)** We are anxious, of course, to have our figures correct, and I see here that while the coal output in 1889 was 35,609 tons, with a value of 12,805*l.*—just 10*s.* a ton—in 1898 it was 387,811 tons, with a value of 175,015*l.*, and this diagram shows that each year the production is increasing?—**(Mr. Audas.)** Yes, since the war.

917. Since the war there has been unbroken progress?—Yes, there was a check during the war.

918. Does that increased production represent increased export?—Yes.

919. A larger output goes abroad?—Yes.

920. Now, you say the coal is equal to best Welsh. That is the first time I have heard that. I have heard a good many say it is perhaps 10 per cent. less. In any case it must be very dirty?—No.

921. Are there any washing machines?—Almost all the collieries have washing machines.

922. Are they in constant use?—Yes.

923. And the coal is screened to a definite dimension before getting it away from the pit?—Yes.

924. So if it is dirty at all it is inherent in the coal?—Yes.

925. Not in the external shale?—It occurs principally in the way of shale bands, and these shale bands are extracted from the coal.

926. Has the Province been geologically surveyed completely?—No, only very partially.

927. So you do not know very much yet about what mineral wealth you actually possess?—No.

928. Have you any idea from the surveys that have been made how many millions or hundreds of millions of tons of coal you have yet to raise?—**(Mr. Steart.)** Yes. We calculate in the Klip River District there is about 4,369,920,000 tons.

929. And your rate of output at present is what?—About two millions.

930. Then we don't need to concern ourselves about the future?—But that is not all good coal.

931. You cannot raise all that?—No, only a small percentage of it is good coal.

932. But there is enough coal according to that figure to supply all requirements for many generations?—Yes, if some use is found for the inferior coal.

933. Have you any output of gold?—**(Mr. Audas.)** The output of gold last year was under 1,000 ozs.

934. A negligible quantity?—Yes.

935. Was it combined with anything else that you were raising?—In 1910 we had an output of about 10,000 ozs. This gold was derived from a number of prospecting claims. The area of gold is very large, but none of the mines have reached really a proper development stage.

936. You have no expectation of any large quantity of that being got, as far as you know at present?—No.

937. Have you any copper or tin?—Yes. We have quite a number of minerals that have not been mined on a commercial basis. We have very many copper deposits, but they are small and irregular in size. The lenses are very small and uncertain, although the ore is very rich.

938. What percentage of copper do you find in the ore you get?—It varies. We have had some extraordinarily rich ore.

939. Why don't you go on with it?—The cost of following up these small lodes is too great at present. I might say it has never had a proper trial yet. Of course, it may be possible to draw the ore from a lot of these small deposits and smelt it at a central smelter, but that has not yet been tried.

940. You said a little time ago that no iron ore fields had been developed. Did you hear the last witnesses?—No.

941. They gave us some specimens of iron ores, but I suppose these must have been taken from the outcrops?—Yes.

942. There has been no actual working of an iron-field?—No.

943. Now to revert for a moment to your coal: is it sulphurous?—Some of it. According to the general analysis, we get sulphur from 1·2 to 1·6.

944. Is that on the average coal?—Yes.

945. Is some of it higher than that?—Yes.

946. And that is the coal that sometimes goes wrong?—Yes.

947. Have you found, as the coal goes deeper, that the sulphur diminishes?—No, we find that there are certain mines where the coal is more sulphurous than in others.

948. Does depth make any difference?—No, in fact the collieries where the coal is more sulphurous are rather shallow.

949. At the first mines opened in Natal, the coal was very sulphurous, was it not?—No.

950. Does the Natal coal compare favourably as respects Witbank coal?—Yes, it is better than that.

951. And so far as it has been developed at present, it is the best coal in the Union?—Yes, but it is rather thinner than the Transvaal, and more expensive to work.

952. Are your collieries worked under the general mining law?—Yes.

953. A Union law?—Yes.

954. Does that law differ in any material respect from the law under which the mines were worked prior to Union?—Very little.

955. And the Mines Regulation Act, is it at all similar to the corresponding English Act?—Yes.

956. And the mines are rigidly and carefully inspected?—Yes.

957. Are accidents numerous?—Yes.

958. Is that the result of carelessness or the result of the air in the mine, or what?—It is mostly due to the employment of unskilled labour.

959. Would you say the bulk of them are preventable or not?—I should say the bulk are not preventable.

960. How many lives are lost to the million tons of coal?—I could not say off-hand, but the death-rate for the last two years has been 1·9 per 1,000 of persons employed.

961. Do you mean the death-rate from accident?—Yes.

962. And you are referring not only to the fall of coal from the roof, but accidents from bad ventilation and all other causes?—Yes, but accidents from bad ventilation are very few.

963. You are satisfied that the Province has a great asset in the coalfield, and it is likely to develop a great deal more?—Yes.

964. Have you an increasing demand for the coal from foreign countries?—Yes, I believe so, from the East principally.

965. **(Mr. Garnett.)** Just one question in regard to the methods of mining here. Your mining here is mainly by adits, is it not?—**(Mr. Steart.)** No, mainly by shaft.

966. There is no deep mining?—The mining is mostly by shaft, but those are not deep. 700 feet is our deepest mine.

967. Have you many deaths that can be ascribed to bad ventilation or lack of ventilation?—No, our mines are the best ventilated in the whole of South Africa.

968. Now, it has been alleged that there is a considerable waste of coal. It is alleged that waste takes place by allowing the roof to fall in and subterranean combustion taking place?—Yes, in the Hatting Spruit District there are two seams of coal. One is about 3 ft. 6in. thick, which is not worked, and that is generally speaking, about 6 ft. above the seam that is worked, and the seam that is worked is worked on the bord and pillar system; and after the pillars have been extracted the upper seam falls into the goaf and is lost, and in many cases it has led to fires, and we have had a deal of trouble.

969. Are there any regulations either made or to be made with a view to preventing this waste?—I have not heard. **(Mr. Audas.)** On the question of wasting the coal, I may say that the matter has been raised with the object of compelling the colliery to work the second seam.

970. Measures are in contemplation, then?—Well, the question has been raised, but I do not know how far it has got.

971. Can you give any exact value to the coal as compared with Welsh?—**(Mr. Steart.)** It is not anything like as good as best Welsh, in my opinion.

972. Is it as good as 8 to 10?—Not in my personal opinion. I should say 7 to 10 of *best* Welsh.

973. Then, you do not think it exceeds the value of the proportions of 7 to 10?—No, I do not think so.

974. Do you see any prospect of developing the coal trade and the exportation of coke?—Yes, I think so, I do not doubt it eventually. There is not much demand at present for coke.

975. You have, I think, railway rates that are fairly easy for export?—Yes.

975a. More favourable than for coal used for internal consumption?—Yes.

976. Of course, these are matters that you do not offer any opinion on?—Quite so.

977. You do not see any opportunity at present of developing your oversea trade in coke?—No.

978. Is the coal suitable for making the highest class of coke?—No. Not the highest, I should say.

TRANSVAAL.

Pretoria, Monday, 30th March, 1914.

Mr. Edmund Francis Bourke, President of the Pretoria Chamber of Commerce, called and examined.

(For the evidence of this witness on "Animal and Agricultural Produce" and on "Fruit," see pp. 246 *and* 319 *of* [Cd. 7706].)

(Witness.) I would like to put in a statement of the mineral products from the Pretoria District and from our hinterland. The output from the Messina Mine in 1912 was 1,619 tons of copper, valued at 49,142*l*. In 1913, the tons treated were 5,289, of a value of 138,328*l*. I may say that this was the output before the railway reached the mine in 1914. For January and February, the two months available, the output was, January, 908 tons, of a value of 23,412*l*., and February, 1,494 tons of a value of 35,016*l*. I have also figures showing the output of copper from Messina, of tin from Zaaiplaats and also from the Rooiberg.

979. **(Chairman.)** Those figures are interesting as showing the importance of the output?—Yes. The development that has already taken place, the possible development still before us. Also, I have the figures as to the lime output, the manufacture of cement, the Premier Diamond Mine, and the output of coal from Witbank Collieries.*

980. Yes, we have those last two items from other sources?—We wish also to draw attention to the geographical position of Pretoria. It is on the railway at the converging point of the lines from the east, north, south, and Rustenburg Districts. The mineral development of these areas, as well as the agricultural, will flow through Pretoria—the bulk of it—and, flowing through, its nearest way out is through Delagoa Bay. We wish also to draw attention to the great development in the tin areas, which are still being prospected, the development along the Oliphants River, and along the Warm Baths area, and in the north—to the north of Potgietersrust, Zaaiplaats, Grootfontein, and other mines. We would also draw attention to the Messina Copper Mine and the possibilities of great development in that connection. The adjoining mine, next to the Messina, is being completed, and when the railway is up to the property they will be able to increase greatly their development by working the adjoining farm.

Mr. Izaak Jacob Haarhoff, J.P., called and examined.

(For evidence of this witness on "Land Settlement and Irrigation," "Animal and Agricultural Produce," "Forests," and "Fruit," see pp. 45, 249, 301 *and* 319 *of* [Cd. 7706].)

The witness made the following statement:—

In regard to oil shale: I think the Navy could get all the oil they want from this country if people would only put money into the industry and develop it. We have plenty of this stuff in the Transvaal, and I can show you samples. We have had a report on this oil shale which is satisfactory, and some steps should certainly be taken to develop and test it. Unfortunately, our people in Johannesburg are so fully occupied with gold-mining that they will not take any interest in a thing like that.

981. **(Mr. Sinclair.)** Would you be able to produce oil and to stand on your own bottoms, and compete with other parts of the world?—After it has been proved, I daresay we would be able to.

982. Have you given the subject adequate consideration?—I think so, and I can give you figures.

983. You think that this is an industry that could be developed to compete independently of any nursing?—Yes.

Pretoria, Tuesday, 31st March, 1914.

Mr. Percival Ross Frames, Managing Director of the Premier Diamond Mining Co., called and examined.

984. **(Chairman.)** You are Managing Director of the Premier Diamond Mining Company?—Yes. I must apologise for not having sent in a statement, but I have been away a great deal lately, and I have not had an opportunity of preparing one.

985. But you are prepared to answer questions on the subjects on which we wrote to you?—Yes. I think perhaps it might be the best way if I made a verbal statement and then you could ask any questions afterwards.

986. Very good.—This Company started business in November, 1902. The capital of the Company is 80,000*l*. divided into pound shares. Subsequently, these were split up into 160,000 preference shares of 5*s*. and 320,000 deferred shares of 2*s*. 6*d*. The preference shares carry a cumulative dividend of 12*s*. 6*d*. per annum, and the Company has paid in respect of those shares 900,000*l*. in dividends. The deferred shares get the remainder of the profit, and we have paid in dividends 1,400,000*l*. In addition to the dividends that have been paid, we have expended on equipment since the inception of the Company, that is, up to the end of the last financial year, 31st October last, 1,821,356*l*. out of profits. And we have put up a hospital for Europeans, 12,300*l*., and a Recreation Hall for the workmen, consisting of a hall and library and museum, costing 6,700*l*. The total output to the 31st October, 1913, from the commencement of operations was:—Loads hauled: 71,752,221. Loads washed: 65,306,976. Diamonds found: 16,455,704 carats; and the value of the product: 14,960,004*l*. 11*s*. 7*d*. Another question that is on your paper is in regard to the formation and method of working and the sale of diamonds. Well, the mine is a true Kimberlite in a pipe of eruptive origin. The life of the mine, for all practical purposes, is eternity. It is impossible to say what it is, but it is a very much larger mine than any other diamond mine in existence, and though we removed last year 11,028,738 loads, we only lowered the mine by 33 feet.

987. That is how many tons approximately?—Well, a load is nine-tenths of a ton.

988. Say it is ten million tons?—Ten million tons. In regard to the method of working the mine, the diamondiferous ground, as you probably observed when you were out there, is contained within a rim rock. This is broken by means of blasting. The ground is then loaded into trucks by natives, concentrated at a common point, which is called the onset, and there they are drawn up an incline of one in five. It is brought to the washing machine and automatically tipped up by certain control levers worked

* Not reprinted.

by natives. The ground is then thrown on the screens. The fine is passed through the screen, and the coarser and large lumps pass into the big gyratory crushers and they are crushed, and after being crushed it joins the ground that has passed through the screens, and the mass then passes through four-feet rollers and is crushed to a rather large size so as to avoid breaking the big diamonds. This is then lifted, and passed either through pans, which is the old system of working, or over pulsators, and is there concentrated to a certain extent. The overflow is passed through a second set of rollers six feet in diameter, set closely together, and the ground is again crushed and passed through pans or over pulsators. The residue, called the tailings, after the water has been drained from it, is conveyed by trucks and dumped. The concentrates are carried on a conveyor belt up to the sorting house, and from there they pass through tube mills and the ground is further reduced. The residue from the tube mills is then passed through another set of pulsators worked on a slightly different principle to the original pulsators through which it passed, and the ground is further concentrated. Then these concentrates are passed over grease tables travelling in the opposite direction to the flow of ground and water, and the diamonds, together with certain other minerals that we find in the mine, adhere to the grease. The diamonds and the ground that adheres to the grease are then taken and the coarser ground is sorted straight away, and the finer ground is passed over magnetic separators, and certain magnetic substances, such as ilmenite and magnetite are removed. The finest ground is then passed through the blind gig, also a small pulsator, but instead of the concentrates passing through this gig they settle at the bottom by the pulsating movement. All the diamonds then, together with the heavy matter, settles at the bottom, and when it is turned over the diamonds are found in great profusion, and this is also sorted. The whole plant is operated, as you probably noticed, from a central power plant, where we have electric units, and the electricity is conveyed to the different points where it is required, but some of them are direct driven by steam. The water which we use—about three million gallons per day—is pumped from the Wilge River, a distance of 22 miles from the mine at a cost of about 1*d.* per thousand gallons. The diamonds, after being recovered, are weighed by the men in the sorting house—two men are specially in charge there—entered in a register, and next day they are posted to Johannesburg by registered package. In Johannesburg they are assorted and classified into about 1,000 different lots. They are then valued by experts, shipped to England, re-assorted in London by the Company's representative, and there sold to the cutters and others, and the business is practically all cash. In regard to the third question, at the present time the number of white men in the service of the Company is 872. Before the strike, there were about 870 and 41 contractor's men, making 911. The average daily earnings, including the staff, are 20*s.* 3½*d.*, and, excluding the staff, 19*s.* 2½*d.* The average monthly earnings, including the staff, are 26*l.* 7*s.* 9*d.*, and excluding the staff, 24*l.* 19*s.* 7*d.* The average number of hours worked per shift is ten. The total amount earned by white employees, including the staff, for twelve months ending 31 October, 1913, was 261,816*l.* I have here some details in connection with the different departments showing the rate of pay. We have the barrier system at our mine.

989. What is the barrier system?—When a man joins the staff, if he goes into the mine, he begins at ten shillings, and goes on by six-monthly rises until he gets to 13*s.* 4*d.*, and there is a barrier and he has to wait. The rises up to that point are automatic. After that period he has to wait until there is a vacancy in the department above, and then he starts on the minimum in that department, which is higher than the amount he was before receiving, and so he goes on. Perhaps it would be convenient to mention here that, as far as possible, we avoid putting any man over the head of another. Every man coming into the service of the Company begins at the bottom of the ladder. Unless we require a technical man and we do not happen to have one in our service, we never put a new man over the head of another workman already in our service. Then the children of our workmen have the first preference to any vacancy that may occur on the mine, which they may desire to take. In addition to the direct benefits that the men receive from the salaries mentioned, we provide them with housing at a very low cost. We contribute to the Benefit Society on the *l.* for *l.* principle, and this Benefit Society, in the case of the illness of any man, provides all medical attendance, medicine, and sick pay, unless he is in hospital, from the funds, and in the case of the man's death from natural causes, the heirs of the deceased receive 200*l.* In the case of death from accident, they can go up to a maximum of 500*l.*, but in that case the Company takes credit for its half of the contribution in reduction of any compensation that has to be paid under the Workmen's Compensation Act. We have also given the workmen on this property the exclusive right to trade there. All these stores that you saw yesterday belong to the workmen. The Co-operative Society has a capital of 100*l.* divided into shilling shares. Each workman and the Government servants on the property hold a shilling share. No man can hold more than one share. The dividends are paid on the amount of the purchases effected by each member during the year. This Society was started in 1908, and the Company provided the initial capital necessary to enable them to start, which they have paid back in full, and since then they have divided amongst the members somewhere about 80,000*l.* in dividends. The last year, I think, they got a dividend of four shillings in the pound on their expenditure.

990. Is that trade done with whites only or with natives too?—With whites only. The natives are supplied by the Company in the compound, but we give the stores whatever contracts we can, such for instance as the bread contract. They bake the bread and sell it to the Company and the profit made during the last three years from that item alone I think is somewhere about 23,000*l.* But with a view to these men retaining their self-respect, we charge them the same as the man who previously had the concession to run the stores there, namely three per cent. on the turnover. This three per cent., however, the Company does not take. It gives one per cent. to the Benefit Society, one per cent. to the Co-operative Society to enable it to build up a trading fund, and one per cent. is devoted to the sports and recreation club. It gives them about 900*l.* to 1,200*l.* a year for sports, and we are thereby relieved of the obligation of assisting them from time to time when they want prizes and so on. In 1912, we started the Old Age Pension Fund and the Widows' Pension Fund. We dated it back to the commencement of the Company, and the Company paid up all the contributions that would have been due by the men, and by the Company as from the date when they went into the service of the Company. This cost us 85,000*l.*, 5,000*l.* more than our capital, and we now contribute on the basis of 4*l.* for every one pound contributed by the men. At Christmas time, we usually give the day's pay men, in addition to the Christmas Day's pay, two days' pay, and the staff half a month. As I said before, we have provided them with a recreation hall, library, and museum, and when the shooting season is on—I regret that the Directors are not much in the way of sportsmen—but at the end of the season, we allow our workmen to shoot upon the property of the Company. And notwithstanding all this, the men went on strike—or a large number of them—in January last.

The approximate number of natives employed at the present time is 14,000, and the average wage per shift is 3*s.* The average number of hours worked per shift is ten and the average expenditure per shift for the boys is 1*s.* The total amount earned by native labourers for the twelve months ended 31st October last was 611,226*l.* Then there are some other figures which I have here which may be of interest to the Commission. Our minimum daily wage is 2*s.* 6*d.* The wage at which the boys are engaged by the gold mines is 1*s.* 6*d.*, so we allow 1*s.* for food. The minimum wage therefore is 2*s.* 6*d.* For certain fixed jobs it rises to 4*s.* 6*d.* per diem according to the nature of the work. Certain work, for instance,

loading, is done by contract by the natives and drilling also, and the highest daily wage, the general average earned for the year, was 4*s*. 6*d*., for one day in the year, in the case of loading boys, and the lowest daily general average earned for the year was 3*s*. 4*d*. The highest amount earned per fortnight of 12 working days was 1*l*. 2*s*. 6*d*. The lowest amount earned per fortnight of 12 working days was 1*l*. 10*s*. That is the guaranteed minimum. The highest amount earned for one day was 1*l*. 6*s*. That is within the legitimate day. But sometimes these boys sneak into the mine and take two shifts, and sometimes they slip in on Sunday night, work the whole of the next day, and they come out with more, but that is not a fair day's work. In regard to drilling, the highest daily average for the year was 3*s*. 2*d*. and the lowest 2*s*. 11*d*. The highest amount earned per fortnight was 4*l*. 10*s*. and the lowest amount earned per fortnight was 1*l*. 10*s*., the minimum. The highest amount earned in one day was 8*s*. 6*d*. and the lowest 2*s*. 6*d*. The average earnings per boy throughout the year including piecework and overtime was 3*s*. 0·127*d*. The boys feed themselves. We find this to be a very excellent system. They can either buy raw food and cook it themselves, or prepared food, or if the boys wished it we would provide them with rations. But though they know this, we have never had an application on the part of any of our boys to be rationed instead of being allowed to feed themselves. Of course, at Christmas time we give them a treat too. The white men do not do any piecework. It is all day's pay. They are supervisors and overseers, except the mechanics, of course, who have to do the actual manual work in connection with their trades.

Now, as to the method by which the native labour is recruited, and the sources from which it is obtained with special reference to sources within British South Africa as compared with other sources. Well, the Company's system is directed towards the encouragement of a voluntary labour supply from various labour districts throughout British South Africa. We are also members of the Witwatersrand Native Labour Association, which recruits labour in Portuguese Territory. We are at present entitled to receive from the Labour Association about four thousand Portuguese boys, but we have only 1,511 in our service. We do not require the others. Our labour force approximates to 14,000, and is made up of natives from British South African districts 12,157, Portuguese East Africa 1,511, British Nyasaland Protectorate 32. These latter were got many years ago and they have never left us. We do not recruit in the same way altogether as the gold mines do. We have agencies at the different centres in the northern Transvaal, and in the western Transvaal, and in Basutoland we have a man who was formerly in our employ, and he gets a capitation grant for all natives sent from Basutoland. Any boy presenting himself at the mine without the intervention of one of our agents or recruiters gets a bonus of a sovereign. We think it only fair that the black man who comes to work on his own account should be paid rather than that some white person who intervenes should receive it. But the native, of course, receives less.

Now, in regard to the compound; the system in vogue on the property of this Company is what is known as the closed compound, and it is similar in character to that of the De Beers Company, and, I may say, is modelled upon it. The boys do not seem to have any objection to the closed compound system, which is the one adopted by pretty well all the diamond mines, and you will probably have heard that it is much easier to get natives for the diamond mines than for the gold mines, where they have the open compound system.

991. Why?—Well, at one time I thought it was due to the fact that ours was an open working, but in the case of the De Beers Company it is not open. They are underground also, and yet they have little difficulty in getting all the boys they want. There, of course, it is the traditional good treatment on the part of De Beers. They do treat their men extraordinarily well, both black and white, and I may say we try to follow their example, as far as possible, in that respect. And, of course, this contract system is very attractive to the native. He can earn a large amount of money, and in a smaller degree I think they are also influenced by the fact that they may find a diamond and get a handsome reward. Some of these boys have found large diamonds, and they have been overwhelmed by a fortune, as it is to them, in the shape of, perhaps, 100*l*. It would be just the same as if a million were dropped into my lap, to the native. And, of course, that also has its influence. Those are the principal causes that I can think of. I think first the contract system, secondly, the system of feeding themselves, and thirdly, the possibility of finding stones. By feeding themselves they can get just what they fancy, instead of having a rigid ration of mealie meal served out to them, and when a man is tired and has no appetite for mealie meal, which is not always palatable, he can buy just what he likes, and he gets an allowance which enables him to live very well. The food supplied to the natives in the compounds is of the very best quality, and it is supplied to them as near to cost price as we can manage it. The difficulty is that the native does not understand the rise and fall of prices in regard to food. Therefore, you have to fix the price that will carry you through. At the present time, I think, we supply mealie meal, for instance, at a little under cost, but we do supply everything as far as possible at cost price in the way of foodstuffs. The other goods which the native buys we supply at current prices. If we sell for less, the mercantile community outside complain that the boys won't pay the proper prices when they come out. If we charge more, with a view to deterring them from buying, then the mercantile community say that we take advantage of these boys, who are practically close prisoners, to charge them what we like. So we stick to these current prices and find that is the best system, and in regard to food, as I said before, we sell at practically cost price.

Then we were asked for the average period of service of white employees. As at the 1st January, 1914, the average was four years. But the Commission must take into consideration the fact that the first three years of our operations on that mine equalled three months on the present scale. The labour we had was so very much smaller then than now. I will hand to the Secretary a return showing the different periods that these men have been in the service.* For instance, we started in 1902. I think we started with one white man. That is over eleven years ago, and he is still with us. Over ten years, there were 23 men, practically the staff. And so it goes on. But, of course, those figures have been disturbed by the strike. The average period of service of native employees—British South African natives—is about six months, and East Coast natives—Portuguese boys—about twelve months.

It is very difficult to give any approximate figure of the number of boys that return to our service after having left, but I can say that a very large proportion of them do return. They work for six months and then disappear and return again—quite a large number. We were asked for the death-rate. Well, during the last few years we have had very few deaths from accident and disease in the case of the white employees, comparatively speaking. I have

* This return was as follows:—

Premier (Transvaal) Diamond Mining Company, Ltd.

White Labour.

Classification according to Length of Service.

Date engaged.	Length of Service.	Number of Men.
1902	Over 11 years.. ..	1
1903	Over 10 years.. ..	23
1904	Over 9 years.. ..	58
1905	Over 8 years.. ..	115
1906	Over 7 years.. ..	181
1907	Over 6 years.. ..	256
1908	Over 5 years.. ..	299
1909	Over 4 years.. ..	366
1910	Over 3 years.. ..	452
1911	Over 2 years.. ..	567
1912	Over 1 year	727
1913	Under 1 year	142
Employees on books 1st December, 1913		869

given figures which will be put in for the years 1909 to 1913.* During that period we have had six fatal accidents, and the death-rate from accident has worked out at 1·34. In the case of disease we have had 14 deaths, and the rate has worked out at 3·11 per thousand per annum and the total death-rate per thousand per annum is 4·45.

992. That is deaths from natural causes and accident among Europeans?—Yes.

993. **(Sir Alfred Bateman.)** Perhaps they would go somewhere else to die?—No, why should they? We have a beautiful graveyard and a good hospital. We have good doctors, and they get medicine for nothing, and yet they do not die! Of course, it is largely owing to the men being comparatively young men, and men in the prime of life.

994. You have picked lives and picked ages. I suppose the mortality outside of the mine would be about 7 or 8 per thousand, in any ordinary comunity?—I do not know. I was rather startled myself by these figures, and have almost come to the conclusion that the best place to live is the Premier Mine for a white man. Coming to the natives, however, the figures are not so satisfactory. The death-rate during the last few years in the case of natives, from accident and disease, pneumonia included, is rather higher than we like to see. We give the figures for the years 1909 to 1913, and we give the deaths from pneumonia, and the rate per thousand from this disease. The rate in 1909—the death-rate from pneumonia—was 17·97; in 1910 it was 28·97; in 1911, 26·94; in 1912, 19·96; and in 1913 it was 4·8. I may mention that in 1912 we carried out experiments with Sir Almroth Wright's prophylactic vaccine. We exercised a careful control, and we found that there was a very marked decrease in the incidence of pneumonia in the case of the inoculated boys. We started with a small dose, that suggested by Sir Almroth Wright, 200,000,000 germs, and we afterwards increased this until we got 1,200,000,000 germs for a dose of inoculation, and last year we inoculated all the boys on the property, and we have this satisfactory result. I do not know, of course, that it is the result. The medical profession tell me that it is not. They tell me that we are deluding ourselves, and that the reduction in the incidence of pneumonia is not due to this at all—that the figures have undergone a statistical examination. But I have the result and I am not concerned. I told them that if we had injected pure spring water, and the fall in the pneumonia rate had synchronised with it, we should probably go on injecting pure spring water for the rest of our lives. Then in regard to other causes, we give the death-rate year by year.

995. **(Chairman.)** Are these all other causes?—Yes, all other causes except accident. Worked out for each year, in 1909 it was 5·26: 1910—13·2: 1911—13·8: 1912—13·38: in 1913—8·82. The accidents for the period from 1909 to 1913 worked out at 2·33 per 1,000. The death-rate from all diseases was 23·23 in 1909, and rose in 1910 to 42·17, in 1911 to 40·74, in 1912, when we had a partial inoculation, it fell to 33·34, and in 1913, when all the boys were inoculated, to 13·62. I may mention that our death-rate has always been higher than on the gold mines, and the existence of pneumonia on our mine is also greater. But, at the same time, you do not find a corresponding fall in the case of the gold mines. There has been a slight fall, but it is nothing like the same proportion as in the case of the Premier Mine. Anyway, you would have expected to see us rather behind them than otherwise, but, as a matter of fact, we are ahead of them now.

996. Has there been any other change besides inoculation during late years on your mine?—Well, we put in bunks, and kept a careful record of the results, and we found, as a matter of fact, that the incidence of pneumonia was a little against the bunks. As this matter of the death-rate may interest some of the members of the Commission, I have had a return prepared for six years showing month by month the incidence of diseases, and the different kinds of accidents, and so on,—the death-rate—and I will hand these particulars to the Secretary.†

Then the last question which was asked was as to the amount which the Company contributes directly and indirectly to the revenue of the Government. On the basis of the work for the year ended 31st October, 1913—we have taken it for the the year because that is about our standard—we have paid to the Government:—Native Pass Fees, 18,700*l.*: Post and Telegraphs and Telephones, 4,600*l.*: Licences for boilers, native labour, trading, and so on, 200*l.*: Co-operative Stores, 250*l.*: and then the secretary who has made out this return has rather let his imagination run away with him—Fines, 1,350*l.* That is a very indirect contribution on the part of the Company, and is on account of misdeeds by natives and white men. I do not think we are entitled to take credit for that. Then in regard to railway carriage on coal, 16,600*l.*: carriage on goods from Delagoa Bay, 29,400*l.*: on goods from the coast, 117,400*l.* That is, of course, working it out at what the merchants probably paid, and was included in the price that we paid for the goods to the merchants. We do, as far as possible, buy all our supplies either in Johannesburg or Pretoria. It keeps the population sweet. Then in regard to passenger traffic, including natives brought up to the mine, 41,000*l.* A portion of this only contributes to the revenue of the Union. The ratio we cannot ascertain, because a portion of the railage on boys from Delagoa Bay is Portuguese, but it is only a very small portion, because only a very small proportion of native boys come from there. The native fares come to 24,500*l.*, out of 41,000*l.* The Customs duties are a bit of a guess, 45,000*l.* Purchases in Johannesburg were 373,000*l.*, and we have allowed Customs at 1,500*l.*, because most of our goods

* The return was as follows:—

Death Rate during the last few years, Deaths from Accident or Disease (Pneumonia, &c.), in the case of White Employees.

Year.	Accident.	Rate per 1,000 per annum.	Disease.	Rate per 1,000 per annum.	Total.	Rate per 1,000 per annum.
1909	2	2·34	2	2·35	4	4·69
1910	—	—	5	5·66	5	5·66
1911	1	1·15	5	5·77	6	6·92
1912	2	2·09	—	—	2	2·09
1913	1	·97	2	1·95	3	2·92
Totals	6	1·34	14	3·11	20	4·45

Death Rate during the last few years, Deaths from Accident or Disease (Pneumonia, &c.), in the case of Native Labourers.

Strength.	Year.	Pneumonia.	Per 1,000 per Annum.	Other Medical Diseases.	Per 1,000 per Annum.	Total.	Per 1,000 per Annum.	Accidents.	Per 1,000 per Annum.	Grand Total.	
7,790	1909	140	17·97	41	5·26	181	23·23	9	1·16	190	24 39
11,287	1910	327	28·97	149	13·20	476	42·17	41	3·63	517	45·80
10,800	1911	291	26·94	149	13·80	440	40·74	14	1·30	454	42·04
14,125	1912	282	19·96	189	13·38	471	33·34	30	2·12	501	35·46
14,172	1913	68	4·80	125	8·82	193	13·62	42	2·96	235	16·58
58,174	—	1,108	19·05	653	11·22	1,761	30·27	136	2·33	1,897	32·60

† Not printed.

are of British origin. Then on compound supplies we paid 24,000*l*. The purchases for the compounds were 353,000*l*., and that includes the bread contract for 44,500*l*. from the Co-operative Society. The Co-operative Stores supplies were 19,500*l*. That is reckoning 2,000*l*. on the cost of goods paid in Customs. On the bulk of the goods the duty is rebated. In addition to those indirect payments we pay to Government 60 per cent. of the profits made by the Company from its mining operations. For the year ending October 31st, 1913, we have paid 507,614*l*. For the year ending October 31st, 1909, we paid 74,838*l*., but in connection with this must be taken into consideration the Trading and Emergency Fund established at that time—400,000*l*. The Government has a 60 per cent. interest in that, that is 240,000*l*. I give the different years in this return which I am going to hand in to the Commission*, and you will see that for the financial year ending October, 1910, we paid 293,949*l*.: for 1911 — 297,920*l*.: for 1912 — 403,550*l*.: for 1913—507,614*l*.: and the total amount paid by the Company since it started mining operations in 1902 has been 2,586,949*l*., excluding their share in the Cullinan Diamond, which was given to the King. And then we paid a half per cent. export duty on our diamonds, which is supposed to be earmarked for the purpose of detecting and suppressing crime in connection with diamonds. We paid in 1909 the sum of 5,984*l*., going up to 12,469*l*. in 1913, and in that connection we consider that we have a just complaint to make against the Government, because they have not spent the money for the purposes for which it was provided. This is the statement of the figures, and these are the supplementary figures giving more details in connection with the other figures.

997. Does that complete your statement?—Yes.

998. We are much indebted to you for putting the position before us fully. Your statement has been so clear and complete that I have very few questions to ask you. You state that the duration of the life of your mine is eternity?—Yes, for practical purposes.

999. Do you state that on the faith of bore-holes which you have put down in the mine?—Well, we did put down bore-holes. The deepest was fairly close to the rim rock, and we found no encroachment of the rim rock there.

1000. That is, no contraction of the mine?—No, there was no evidence that we could find.

1001. What depth did you go to?—1,000 feet.

1002. And the depth of your present works is what?—The average depth of the mine on the 31st October was 209 feet.

1003. Why did you stop the borehole at 1,000 feet?—Well, at the time, the curiosity of the gentlemen controlling the destinies of the company was satisfied by it.

1004. Regarding your sales in London, how do you sell your diamonds—to a special syndicate or by auction?—No, the diamonds are assorted. It is rather an intricate trade. The diamonds are assorted, as I told you, into probably a thousand different classes. We have buyers for different classes—the manufacturers who cut the diamonds, and the man who buys the diamonds, say this month, has the first right of sight for the next month. We have a value put upon them. The man who buys macles and flats from us, for instance, has been buying that class for a matter of two or three years. In that case, they are the cutters and they manufacture them straight away. We have certain speculative buyers, too. That is how the trade is carried on. We sell to the same people as the Diamond Syndicate sells to, but, instead of having the Diamond Syndicate as intermediary, we have our own representative on a salary, who sells to the same people.

1005. Do you sell in conjunction, or after understanding, with other diamond producers?—Well, there has been nothing in the natnre of a combination or convention, but if there is any idea that we are selling too cheaply, immediate representations are made by either party to the other.

1006. Would you be in favour of an arrangement?—Of a combination?

1007. Yes.—If it is an effective monopoly, yes.

1008. By an effective monopoly, you mean if it includes all producers?—All great producers. You cannot take in all these little people who work on the river, but, probably, if you had such a combination that combination would buy up all their diamonds so as to keep them off the market.

1009. So your condition for an arrangement in the nature of a combination is control of the market?—Yes, that is the point.

1010. In regard to white labour, you have told us that your men stay with you a long time?—Yes.

1011. What enquiries do you make into their records or previous character before engagement?—We make none. We never look at a testimonial. A week usually tells you, a few hours very often, whether a man is any good or not. Before they get the positions of trust they have to go through this rise, and, of course, we weed out the inefficient men, and it is a matter of satisfaction to me to testify that the men we had up to the time of the strike were the very finest body of men I have ever known, they were most ready and willing, contented, and enthusiastic. It was, therefore, with a shock of surprise that we found they went on strike. They admitted they had no complaints against the Company, but they had been derailed by the feeling in connection with the strike, and I personally do not think it is entirely a labour movement. It is just a little disaffection that is going through the world.

1012. I believe on the Rand they have a very large instability of white labour?—Yes.

1013. Here, at all events, the reverse appears to be the case?—Our men remain as long as we will keep them.

1014. To what do you attribute the difference?—I attribute it largely to the fact that the Company treats its men well. There is no difficulty about anyone seeing the General Manager or even myself, if he has any grievance.

1015. Do you attribute it at all to the non-existence with you of piece work and contract work?—I do not think so.

1016. Your system is, in brief, non-contract with white labour and contract with native?—Yes, or, in other words, our contract is with the man who does the actual work.

1017. And not with the supervisor?—Not with the supervisor.

1018. Do you consider that a preferable system?—I think it is the most just.

1019. In regard to the native labour, can you give the Commission the proportion between the natives who are recruited by your various recruiting agencies and those who come freely?—About one-third of our boys come voluntarily without the intervention of the agent or recruiter.

1020. Is that proportion increasing?—It is increasing and has been for some considerable time.

1021. I think it was stated before the Economic Commission that the cost of recruiting for the Rand was 20 per cent. of the total cost of native labour?—Yes. My figures are on the last page of that statement.

1022. You state that your total cost of recruiting natives is 60,000*l*. a year?—Yes.

1023. And the average cost of recruiting per shift worked is 3·58*d*.?—Yes. That is up to the end of the financial year. Since then we have done away with several recruiters to whom we formerly paid a capitation fee, so that this year it will be considerably less.

1024. And do you look forward to the progressive diminution of money paid to agents?—Yes, I do. Of course, the employer always has to have an agency of that kind to assist these boys. A lot of them are ignorant of railway arrangements. They have to be advised as to food obtained along the road, and so on.

1025. However, your expenditure of 60,000*l*. a year would not be accounted for by that kind of organization?—No, that would be a very small thing.

1026. That would probably cost about 20,000*l*.?—Yes. I do not think it would cost us 20,000*l*.; probably 10,000*l*. would cover it.

1027. And you consider that to be a preferable system of remuneration, giving it to the real worker rather than to the recruiter?—Yes.

1028. Does the efficiency of your native labour improve year by year?—Yes, it does, and that is shown

* Not printed.

year by year in the mine where the boys have been increasing their earnings steadily.

1029. Is that shown in these tables?—It is not altogether, but I could give it. I have it in these different annual reports.

1030. I think it would be desirable to have a special statement?—Yes, I will have one prepared.*

1031. These figures would indicate both increase of skill and increase of diligence, would they?—I think they would indicate in a measure both, but I think the biggest proportion would probably be due to the increase in skill.

1032. I do not quite understand to what extent you compete against the Rand in getting natives and to what extent you co-operate with them?—We do not co-operate with them, we are in competition with them, but we co-operate in connection with this Witwatersrand Native Labour Association. We are members of it, and, owing to some arrangement with the Government made by that Association in connection with the Convention, it is not possible for us to get boys from Portuguese East Africa except through the Witwatersrand Native Labour Association. For that reason we became members.

1033. And do you compete within the Union for boys and take a proportion of boys from outside the Union?—Yes, there are certain areas where we do not compete at the present time. We did compete with them in the Cape Colony and we had a recruiting organisation down there. We found we were getting too many boys, however, and as these boys from the Cape Colony are much more civilised and had certain rights, and so on, we thought we had better drop that particular area. They were a little troublesome, so we stopped it and withdrew our competition. In October or December last we had a recruiting agency in the Protectorate on our western border, where we paid a capitation grant, but, owing to the adequate supply of labour we were getting, we terminated the arrangement with those people affecting that particular field. Basutos, of course, we draw more labour from than the whole Rand does. I think the Basutos are very fond of the diamond mines; they have been working in them for years, and they love this contract work, more particularly the loading. They go to the diamond mines more readily than the gold mines, and I think you will find that we have probably more Basutos than the whole of the gold mines put together.

1034. Have you now all the native labour you require?—At present we have.

1035. Speaking generally, during the last few years, have you always had your full complement?—At one time we were lulled into a rather false state of security in regard to recruiting, and there was also a cut in the contract price paid to these boys. Then we had to busy ourselves in getting the boys, but when we brought back the loading price we found no difficulty, and since then we have had no trouble in getting the boys, and we have never been short.

1036. Your experience would appear to show that an increase of remuneration to the native acts as a powerful stimulus to recruiting?—Yes, he is very much like the white man in that respect.

1037. Carrying that argument further, if the native labourer received the money that is now given to the recruiter would that act as a powerful stimulus?—That is the suggestion I made to some of those gold-mining people the week before last.

1038. What is your view of its probable effect?—I think it would do a lot of good, but it must be remembered that in the Cape Colony the recruiter is in a very strong position. He is the trader there and he makes advances to these boys because they get credit. Therefore, he has a control over them and can direct them to go to the mines and work, or to go to different places, and, of course, the gold-mining industry has a veneration for these traders, and they do not like to offend them.

1039. They are more afraid of them than the native is?—Well, I think it is just about equal.

1039A. Have you any views, or are you in a position to form views, regarding the instability of white labour on the Rand?—No, I would rather not express an opinion, but, of course, I have views, although they are not worth anything to this Commission.

1040. Have you any trouble at all with the illicit drink traffic?—We have had a case occasionally, but it is quite a simple matter to control it under the closed compound system. If any liquor comes in you know it must be one of your own men because nobody else can get in without a permit.

1041. Have you had any difficulty with small traders established round the mine?—Well, the area round the mine is our private property, and they cannot come there without permission, so they camp out in the road, that is, the hawkers. We have had one case of illicit diamond buying in connection with one of them, but generally they do not give us any trouble.

1042. Then absence of difficulty is due rather to the absence of the trader?—I think so largely. On the Rand, of course, it is quite different. When we acquired this mine, there were none of these awkward things called vested rights. In Kimberley, of course, they had those, and they could not get rid of the population, and they could not restrict these people from trading.

1043. Do you suffer less from illicit diamond buying than others?—I think we do, because we handle our stuff less for one reason, and secondly, our mine is poorer. You know in some of these places the illicit diamond buyers will give all sorts of facilities and credit to white men, and when they get that credit and they cannot pay, these buyers say to them, "Well, you can pay us in another way." That has been known to happen.

1044. Now turning to the question of the death-rate. Your figures regarding white labour are extraordinary. With regard to natives, do you attribute the remarkable fall in your death-rate both from pneumonia and from other causes solely to inoculation?—No, I attribute it principally to inoculation.

1045. The fall in the death-rate from pneumonia is coincident with the great fall in the death-rate from other causes?—Well, it was an extraordinary thing that when we had a control, and it was a random control, there was a very material decrease in the cases of disease among the inoculated boys. I mean other diseases too, but I am told that that is not extraordinary, that it happened in the case of prophylactic inoculation for typhoid, where you had a fall in other diseases. Why it should be so, I do not know. One or two medical men have raised this question, and it has been discussed, but I am not competent to judge. All I say is that the fall in pneumonia synchronised with the inoculation, and we have close on 14,000 boys. We have 260 boys alive to-day who have no business to be alive. They ought to be dead.

1046. Have those figures been discussed by any medical society or scientific body?—Well, they have been submitted to the Statistician of the South African Institute for Medical Research for examination and criticism. I happen to be Chairman of that Institute.

1047. Have you got his observations?—Yes, but they have been marked confidential.

1048. Does he wish them not to be used?—Yes. As a matter of fact, he has discussed two factors of error which he says are present. I have put those to our medical man, and he says they are both incorrect. In one case he has assumed an incident as a fact which was not in existence.

1049. So that, speaking as a non-technical man, you consider those averages to be correct?—Well, they are very striking. The records are correct.

1050. And you are aware of no perverting element?—I am not aware of any. I have this fact, that the

* The witness subsequently furnished the following statement :—

I am sorry to find that the increases in the earnings of natives do not reflect to the extent I thought the increase in the efficiency of the native labour employed at the Premier Mine. A large number of boys are engaged on machinery and other work at fixed wages because it is impossible, from the nature of their employment, to pay them by results. In determining the progressive efficiency of boys employed on piece work it is necessary to take into consideration several factors other than the larger amounts earned by them, such as the very important one of the much greater hardness of the ground handled latterly, which makes both drilling and loading more difficult. Since I gave my evidence I have discussed this question with the General Manager of the Company, who agrees with me that the improvement in efficiency is undoubted and very marked.

Statistician, who is also a clinician and a doctor, has reported, in the case of the experiment carried on in connection with tropical boys by Sir Almroth Wright's assistant, that in that case prophylactic inoculation proved or brought about immunity from the disease for a certain time. He has made that statement, and I have this fact that we had a fall from the same moment that we began this inoculation, and the ordinary man in the street draws only one conclusion. He may be wrong, of course. But there it is.

1051. Has Sir Almroth Wright made any observations?—He has prepared this report for the Witwatersrand Native Labour Association. He was brought out by them. I do not know whether you have seen the report?

1052. No. That was a report suggesting certain measures?—No, a report on this vaccine that he prepared.

1053. Has he considered the figures that you are now giving us?—I think they are pretty well all included in his report. He has been getting our reports also from time to time and he is satisfied.

1054. What is the date of his report?—I think somewhere about December last.

1055. It was made to——?—The Witwatersrand Native Labour Association. I think they will be giving evidence before you. And the other report is Dr. Maynard's on the Tropical Experiments.

1056. Who is he?—Dr. Maynard is the Statistician of the South African Institute of Medical Research.

1057. What is the date of that report?—December, I think.

1058. Is that also in the possession of the Witwatersrand Native Labour Association?—That is only in the possession of the Institute of Medical Research.

1059. Is a copy of it obtainable?—I can give you copies, of course. And then there is another report by Dr. Lister, which carries the thing a good deal further. He has made a discovery at the same time that a similar one was made in America, that there are certain strains of pneumonia, and he has written a paper in connection with this which opens up a wide field for investigation. A most interesting thing.

1060. **(Mr. Lorimer.)** Some of us had the pleasure of going over your mine yesterday. We also went over the Kimberley Mines. I think I am right in saying that the most obvious difference in your methods is that you do not weather your blue ground but send it at once to the washing machines?—Yes.

1061. So that, in point of fact, you may have a diamond in the mine in the morning and in the strong room in the afternoon?—That is so.

1062. Now, does this pulsating conical roller never do any damage to a diamond?—Yes.

1063. What are the rollers made of?—Steel—hard steel.

1064. Do they scratch the diamonds?—They cannot scratch them but they may fracture them, and then we get the pieces.

1065. I will ask some questions on the notes I made yesterday and what you have given us to-day. Does all the land round your mine belong to the Company?—We have two farms there.

1066. Were the houses round about the mine built on your land?—Yes.

1067. Are they owned by the Company or the men?—The majority by the Company. The men pay rent for them.

1068. Some of them hold their own houses?—Yes.

1069. If they leave their employment, how do you deal with them?—We buy the houses back at a valuation.

1070. Your Pension Fund seems to be treated in a very liberal manner by the Company. You had a strike in January last?—Yes.

1071. Do the contributions on both sides cease during such an occurrence—are they suspended?—No, we dismissed these men that went on strike.

1072. And did they sacrifice their contributions?—They got their own contributions, but not their entrance fees.

1073. Did you take any of these men back?—Only one apprentice.

1074. What qualifies for pension? Is it age, or infirmity, or both?—Well, both. If the General Manager certifies that a man during the course of his employment has become unfit to carry on his work, he can be pensioned off.

1075. And that would apply in the case of accident, or old age, or infirmity?—Yes, and in the case of his death, his widow and children (under 17 years of age) get the pension.

1076. Now, I have a note that the highest amount earned in a fortnight by a native was 11*l.* 2*s.* 6*d.*, and the lowest 1*l.* 10*s.* Would you explain the extraordinary difference?—Yes, you have seen it in the case of white people, have you not?

1077. You mean that there is such difference in the working capacity of the natives that one may be able to earn about eight times as much as the other?—That boy is one amongst thousands. That boy is only put in as an illustration. There are not many that earn it.

1078. Is the small wage the result of inexperience, to begin with?—No, but that boy probably slipped into the mine on Sunday afternoon, and, when darkness came on, he went to work and worked all Sunday night and the whole of the next day.

1079. And you find some eager to work and earn money, and others who are not—just like white men?—Yes.

1080. And you said, I think, that the boys feed themselves and there is no application of the ration system. Is the result satisfactory?—Yes, quite.

1081. You do not find any of them inclined to starve themselves in order to save money?—We were told they did, but I have seen no evidence of it. They feed themselves very well. I do not know if you had an opportunity of going into the compound?

1082. Yes.—You noticed they looked sleek and fit.

1083. Yes. But one thing you said perplexed me. You said the white men are supervisors and overseers and they are on contract work?—No, not on contract work. On day's pay.

1084. White men are all paid a day's wage?—Yes, or a monthly wage—after reaching a certain standard he gets a monthly wage.

1085. You said you were entitled to 4,000 Portuguese natives and you had only 1,511. The Portuguese boys stay twelve months on the mine and the South African boys only six?—Yes.

1086. Why don't you have more Portuguese boys?—Because the other boy is cheaper. He costs less to get. We have to pay 5*l.* to the Witwatersrand Native Labour Association for every East Coast boy we get.

1087. Now, about this death-rate—those are extraordinary figures that you gave us. What is this prophylactic preparation with which you inoculate the boys?—It is not a serum but a bacillus culture.

1088. Is it supplied or do you make it up yourselves?—We make it up at the Institute.

1089. Then, you say the doctors deny that this inoculation has caused a decrease in the death-rate?—Some of them.

1090. Your own men or outsiders?—Outside of our own men.

1091. And do they attempt any explanation?—No.

1092. Because, I suppose, you can attempt no explanation?—No.

1093. And this extraordinary reduction is in pneumonia?—Yes.

1094. Have you a reduction in the numbers attacked or in the death-rate or both?—In the numbers attacked.

1095. And, of course, an enormous reduction in the death-rate?—Yes, but the case mortality is pretty well the same.

1096. This prophylactic has the effect of making the man immune, has it?—Yes.

1097. But if they are attacked they go down as before?—Yes, it is not curative.

1098. You gave us a lot of figures regarding your contributions to the revenue, which are very large. But you would not call railway carriage and posts and telegraphs and so on taxation in the sense of the 60 per cent?—No. I only answered the question that was put to me. I think it is piffle.

1099. You gave us 16,600*l.* for the carriage of coal; but that is a service rendered?—Yes. That is why I call it "piffle." If you get something for your money you have nothing to complain about.

1100. How do you sell your diamonds, in the open market?—Yes.

1101. Not to a syndicate?—No.

1102. Do you set your output to meet the conditions of the market?—No, nature is doing that for us. When we commenced there we got extraordinarily good results, but we have had to increase our operations from time to time owing to the fall in the richness of the mine, so that any intelligence that is lacking on the part of the directors in restricting is made up by nature.

1103. Now did the mine pay from the beginning?—From the very first day.

1104. And has the production been practically uniform from the beginning?—No, it has been falling.

1105. I have a table here from which it appears to have recovered rather in the last two years? It is about one-sixth of what it was to begin with?—Yes.

1106. The fall has not been continuous but very nearly so?—Yes.

1107. You said the life of the mine was practically eternity?—Yes.

1108. I suppose you mean it will certainly last as long as any investor would ever dream of?—Yes.

1109. You are down to 210 feet now?—A little more.

1110. You take off about 30 to 35 feet a year from the bottom of the mine?—Yes.

1111. And, therefore, before you get to 3,500 feet, which is something like the depth of one of the De Beers mines, 100 years will have elapsed?—Yes.

1112. Have you ever made any estimate as to the depth which such a mine could be economically worked at?—Well, it will very much depend on the conditions when you get down.

1113. Precisely?—Naturally, if there has been an eruption down below you would expect that as you got down you would find a gradual contraction; in some cases it may be rapid.

1114. But I am thinking rather of the temperature?—I should think as deep as any gold mine in existence. They reckon they can work down to 7,000 feet.

1115. The cost of haulage would be very much increased at such a depth?—Of course.

1116. But it is a matter that need not concern the existing generation?—No.

1117. I noticed in your foundry yesterday that you used Durham coke—not Natal coke?—We are now using some South African coke.

1118. You know what is the cheapest for yourselves. But what I wanted to get at was this—the Durham coke comes in at such an extraordinary price here—you get it at 35*s.* a ton at home and here it is 7*l.* 10*s.*?—Yes.

1119. Well, now, what do you pay for bringing that from Delagoa Bay to the mine?—I do not know. There is the sea freight, of course, to begin with. I do not know what it is from Delagoa Bay, but from Port Elizabeth the carriage is nearly 6*l.*

1120. Do you think 5*l.* 15*s.* would represent the sea carriage and the railway carriage?—That would be about it.

1121. It must be divided between them, but it seems to be rather excessive?—I think that is about the charge.

1122. Now in regard to the sons of your white employees—do you make them apprentices to the ordinary trades, such as fitters, blacksmiths, and so on?—Yes.

1123. Have you any technical institute attached to the mine?—No.

1124. So they get no technical training?—No.

1125. They have to go elsewhere for that if they want it?—Yes, but I may mention that that very matter was before the Board yesterday, as to giving them some technical education. It has been considered. But that was not as a result of this Commission visiting us.

1126. **(Sir Jan Langerman.)** You gave 60 per cent. as part of your contribution to the Government?—Yes.

1127. Do you regard that as taxation?—No. The question was put to me—the amount we contribute directly and indirectly to the revenue of the country.

1128. The Government treats that as revenue. They do not set it apart?—No. They ought to have, as you know, under the Act. But they have been pilfering.

1129. Now about disease: of course, you have had a big drop from 19 per 1,000 to 4 per 1,000 for pneumonia. Now if the same treatment were applied in Johannesburg, where they have the open compound, do you think it would have the same effect as here?—Well, that is the point I referred to just now about Dr. Lister. He has discovered these different strains of pneumonia, and it opens up a field for further investigation. It may be that we have been supplied with the vaccine of a particular strain that corresponds to our strain. Dr. Lister concludes that if you were to get one strain and inoculate boys who were allied to another strain it would be quite ineffective.

1130. It is something like the violin then—you must be tuned to it?—You must find what the strain is.

1131. You said, I think, that you promoted your men by seniority. Do you not regard their capabilities?—It does not go by seniority. But if there is a man who is fitted to do the work and he has been longer than another he is promoted to the post.

1132. Whether junior or senior?—Yes.

1133. You induce your juniors to work themselves up?—Yes.

1134. You compared 1*s.* 6*d.* as the boys' wage on the Rand with 2*s.* 6*d.* on the Premier Mine?—Yes.

1135. And you give the pay that a Kaffir can earn on your mine. That also applies to Johannesburg: he does not remain at 1*s.* 6*d.*?—Well, they had what they call the average maximum pay which you have possibly heard of.

1136. 2*s.* 3*d.*?—You had an average maximum pay and we have the average minimum pay. No average maximum pay.

1137. So, anyhow, on the Rand the native can also earn as much as he likes, can he not?—Can he?

1138. Is it not correct that he gets so much per day, and if he makes more by putting in so many holes he can practically earn what he likes?—I do not know what the practice is. But I have heard something about this average maximum, which I do not understand. You know what I mean.

1139. Now, about the migration of white men from one mine to another which takes place on the Rand. Of course, on your mine you say they do not change much because they are men who understand their work?—Largely, and, of course, there was no occupation next door for them to go to. If you had a range of mines next door to each other, as you have on the Rand, I daresay there would be a lot of changes, because when a man loses his job on one mine he goes next door.

1140. But is not the basic or fundamental reason for this constant migration on the Rand the inefficiency of the men?—I am not in a position to speak on it. But take your mechanics, I believe there is a good deal of interchange there, too.

1141. **(Mr. Bowring.)** Do you find much difference in the labour of the various tribes that you draw from?—Well, you find that, for instance, the Basuto limits himself almost entirely to loading. The East Coast boy to drilling, or anything connected with machinery. He loves to work with a bit of machinery. The Transvaal boy is the most useful all-round boy. He will do loading, tramming, drilling, or anything.

1142. And they work almost entirely on contract. You give them as much piecework as they like—or do you limit them?—There is no limit.

1143. You allow them to earn practically what they can according to their strength?—Yes, there is certain work, such as developing, that you cannot put out to contract, except paying for the actual drilling; but where you can measure the work you put it on contract, and they can then earn practically what they like.

1144. And their minimum wage is 2*s.* 6*d.*?—Yes.

1145. You are of opinion that you will, in the near future, bring the health of the natives very nearly to correspond with the whites, under your new regulations?—That is my hope. But I do not know whether it will come about. Of course, we consider last year's death-rate a great achievement in that direction. We are not satisfied with it, but we are delighted with it.

1146. And you seem to be working in that direction really by bringing the two very close together—the native death-rate and the white?—Yes. But we never hope to bring the native death-rate down to that of the white men, because that is extremely low.

1147. Is that because of the difference in their work?—No, but I think the native is much more liable to change in the condition of his life and so on.

1148. You think they are more subject to disease than white people?—Yes. The white people acquire, in the course of time, immunity to certain diseases. Take a place like Johannesburg. Pneumonia is rife there. The natives have it and it is believed to be infectious. But you do not find the same proportion of white people getting it as the blacks.

1149. So it is not because of their work being more onerous or disagreeable?—No, I do not think so.

1150. **(Sir Alfred Bateman.)** You have a system which seems to differ from that of nine-tenths of the business people—that is, the system of promoting by seniority?—No, I should like to explain that it is not promotion by seniority. But I said we do not bring a man from outside and put him over the heads of men in our service. Supposing that we have a vacancy and one man has five years' service and another three—if the five years' man is not capable of filling the vacancy and the three years' man is capable, we should promote the three years' man.

1151. Then you do not look to see which is the best man when two are both capable?—No, as long as a man is capable.

1152. But you attach great importance to seniority?—I attach importance to contentment among the men.

1153. And you seem to be working for that all the time?—Yes.

1154. You have never tried the system of co-partnership, I suppose, as far as your white workers are concerned—that is, giving them a share in the profits?—We have given them the trading rights and we cannot give much more when we have to give 60 per cent. to Government.

1155. You have not given it—it is taken from you?—Well, we do not get it, anyhow. And then we pay a considerable amount of indirect taxation. You must really leave us some part of this 40 per cent.

1156. I ask this because I have been connected with the London Gas Companies for some years as Government Auditor, and they have had a system of co-partnership for 17 years?—Somebody tried it up north, I think, and it did not come off.

1157. There were not always profits?—No. Well, we have gone very close to that, too. Many times we have passed dividends.

1158. That is your answer?—Our capital is small, it is true. We have been told that we financed the company stupidly, but we made the capital small and the dividends seem large in consequence. But if we had capitalised this company on what the equipment cost us, the dividends would be small.

1159. Anyhow, you have never considered it?—I discussed it with Mr. Wagner, one of the former Directors of the Company, who is now no more on the Board. I discussed the subject frequently, but in the end we came to the conclusion that doing all we could to improve the condition of the men in these various directions would be preferable to the other system.

1160. They even make some workmen directors in the London Gas Companies.—Well, they can go on experimenting. I am not prepared to follow their lead in that respect.

1161. On the drink question—do not your Portuguese boys require wine?—They like it.

1162. Don't you give it to them?—No, we would get six months without the option.

1163. Surely, seven years ago, when I was here the head of the Portuguese recruitment officers told me that it was a condition of their being allowed to work down here that they were to get a bottle of Portuguese hock?—No, not in the Transvaal. The penalty is six months for the first offence.

1164. They want it, don't they? They are used to it?—We give them kaffir beer instead. We supply all the boys with it.

1165. One other question: You do not know the ages of your boys?—No.

1166. You have no idea of the average age?—No.

1167. Would it be 30?—I think the average would be younger than 30.

1168. **(Mr. Sinclair.)** In answer to the Chairman, you spoke of the increase in the skill shown by the worker after he had been with you for a certain time. Is that progressing or is it limited?—Well, of course, it is limited in any man's case.

1169. What I had in mind was this: Do you suggest that the limit of his efficiency is reached after he has worked for you for a certain fixed period or is it capable of still progressing?—I think that taking it on the average, they have got pretty well on our mine to the limit that a man can do in a day.

1170. Is there any future development in the native himself?—I will put it to you in this way. I think that the quantity of work done by the native on that mine is equal to the average that would be obtained from white men doing the same work.

1171. Having reached that stage of efficiency, is he capable of still further advancing in other work, in your judgment?—Yes, I think he is capable of doing more than he is doing to-day.

1172. You understand I am not speaking as to the quantity but as to the quality of his work?—You mean whether he can do a certain amount of skilled work?

1173. Yes.—Yes, he does do it, too.

1174. And is his capacity for skilled work progressing?—Yes, anything that is mechanical. There is also a considerable margin for improvement still.

1175. You told us, I think, that you have 14,000 natives and that they stay with you for about six months?—That is, the boys outside Portuguese boys.

1176. And you also said that a considerable proportion came back?—Yes.

1177. Do you find that the interval of rest or other occupation which they take tends to strengthen them and make them more resisting to disease?—Well, of course, there is a certain immunity by the length of stay at a mine. When you get the boys the death-rate is very much higher at first in the case of new boys than at any time afterwards. But the returned boy has already acquired a certain immunity and I think his death-rate is better than in the case of entirely new boys.

1178. But you would say, would you not, that the spell which is taken has a beneficial effect on their health?—Naturally.

1179. Now, I take it—we were told so at Kimberley, and I suppose it is so here, too—that when there is a death in the mine from accident or disease, inquests are held?—Not in the case of disease.

1180. In the case of accident there is an inquest?—Yes. There is always an enquiry by the Mines Department. An official is sent out. If it is only a minor accident—not fatal— there is also an enquiry held.

1181. But there is no enquiry if a man contracts pneumonia while working in the mine and dies?—No. You get a death certificate from the mine medical man. It holds good just as in the case of a white man.

1182. Is there any periodical examination of the native while he is working concerning his liability to contract the disease?—No.

1183. I mean to see if he has got it in the initial stage?—No. In the case of pneumonia there is no such thing as an initial stage. You get it and you go down the same in the case of white as black.

1184. Do I understand by that answer that there is no examination of the man until he goes down?—Exactly. If a boy is seen with his leg bandaged up the doctor gets hold of him and examines him, but until a boy complains we do not examine him. It is impossible to have regular medical examination of your boys where there are 14,000 of them.

1185. Now, in regard to your system of old age pensions and payments to widows, in the case of the death of the white worker, is there a similar provision in the case of the coloured worker?—No, he makes no contribution. His period of service is six months.

1186. If he meets with an accident and dies in consequence?—He is compensated under the Act.

1187. On a scale that I take it is fixed by statute?—Yes.

1188. You told us what the capital of your Company is. Can you tell us—are the shares registered?—Yes. In the case of the deferred shares, they are all registered in the name of the shareholder. In the case of the preference shares, a certain number of them are bearer warrants.

1189. Can you tell us, approximately or roughly, in what countries the shares are held?—It is very difficult. Take one shareholder who is resident in London. He has his shares registered here with a South African address. Would you consider him a South African holder or outside?

1190. My point is this: I would like to know to what extent the profits were distributed within the Empire. A considerable proportion of the shares, I suppose, are held on the Continent?—There is a certain proportion.

1191. Where would you say is the domicile of the largest number of shareholders?—In London.

1192. And they are absentees I take it so far as the Union is concerned?—Yes. Of course, we pay income tax to the British Government too. I did not put that in the return.

1193. You have told us what the view of experts is as to the life of the mine; do you find the quantity and quality maintained as you go down?—No, it is not.

1194. Is there a material difference?—The figures in this balance sheet show that. The original production was 1·29 carats to the load. It is now ·202. In regard to the price of diamonds, when we first started the value per carat was 1*l.* 7*s.* 8*d.* and last year it was 1*l.* 2*s.* 2*d.*, but we have had falls between, of 18*s.*, 14*s.* 9*d.*, 12*s.* 6*d.*, 13*s.* 11*d.*, 16*s.* 1*d.*, 1*l.* 0*s.* 1*d.*, and 1*l.* 2*s.* 2*d.*

1195. You spoke of taxation—do you pay taxes based on the life of the mine?—No.

1196. That is not an element—the duration of the life of the mine is not an element in fixing the quantum of your taxation?—No, the law was passed after our mine was discovered, under which we pay 60 per cent.

1197. And the probable duration of the life of the mine is not a factor that is taken into account in fixing your taxation?—No. They could not have got at that time any idea of the duration of the life of the mine, because some of the experts at that time said it was no mine at all, but only a surface wash.

1198. **(Mr. Garnett.)** I should like to return to one point that Mr. Sinclair referred to—he asked about the boys who returned to the mine—those who only worked six months. You said you thought their figure of productivity was increased by the rest?—I said "naturally."

1199. Now do you find that those who contract for twelve months are inferior in that respect? I mean do you find fatigue set up?—No.

1200. Their productivity at the end of twelve months is as great as at the end of six?—Yes. I think it is.

1201. Do you find any falling off at the end of six months in the factor of efficiency, as between six and twelve months?—No, I think there is an increase during the second six months.

1202. The increase of skill probably makes up for any fatigue?—Yes.

1203. Your death-rate figures are very extraordinary. Although your men are living in a pretty densely populated condition I take it you are not troubled with any epidemics underground?—We had a rather bad epidemic of typhoid fever in January.

1204. You are not wasted with such things as small-pox?—No. Every native that comes here is vaccinated. As soon as he comes to the gates he is inoculated for small-pox and pneumonia. There was a case of small-pox out there some little time ago, and all the natives round the district came to our people and were inoculated.

1205. Now, being an open-air occupation, I should imagine you are not troubled much with tuberculosis?—I am sorry to say that is evidently on the increase.

1206. Can you put that down to anything? Is it the effect of 14,000 natives being congregated together?—No, it is not limited to us. It is all over these mines.

1207. Where men are congregated together?—Yes. It is simply infection, I take it. And it is peculiarly rapid and fatal in the case of the natives.

1208. What would be your death-rate?—It is very small now. But that is one of the things that is engaging the attention of this Institute of Medical Research. The figures are anything but reassuring.

1209. In the northern hemisphere one knows that where large numbers of people are crowded together and live in the same confined space there is a tendency for tuberculosis to increase largely?—Yes. If you have one infected person in a room you are liable to infect a large number of people. But this country has always been looked upon as a sort of health resort for people with pulmonary affections, and it therefore causes us anxiety to find this disease spreading among the natives to the extent it promises to. Representations have been made to the Government to have tuberculosis made a notifiable disease, and people suffering from it should not be allowed to go into mines, and so on. I think it will become absolutely necessary.

1210. The matter is receiving very serious attention?—Yes.

1211. Where is this Institute of Medical Research?—In Johannesburg—on the hill by the hospital.

1212. **(Mr. Lorimer.)** You have quite a moderate rainfall here, have you not?—Yes.

1213. Where do you get your water from?—We pump it from the Wilge River—22 miles from the mine.

1214. Have you storage tanks?—We have a dam.

1215. The water we saw yesterday is used over and over again?—Yes.

1216. Still, you require to supplement it. Have you any wells in the neighbourhood just beside the mine?—No.

1217. Everything has to come from the Wilge River?—Yes.

Johannesburg, Thursday, 2nd April, 1914.

Mr. Robert Nelson Kotze, B.A., Government Mining Engineer, called and examined.

1218. **(Chairman.)** What is your official title?—Government Mining Engineer.

1219. And you are in charge of——?—The Technical Branch of the Mines Department.

1220. Which includes the Witwatersrand and all mining areas?—Yes, in the whole Union.

1221. Now, confining ourselves for the moment to the Witwatersrand area, can you give us any general figures, or could you put in any statement, showing the present position of the industry?—I have brought a copy of the monthly statistics we publish,* and also advance copies of certain annual statistics we publish.

1222. Then that brings the information regarding the mines fully up-to-date?—Yes, and the diamond production for the year.

1223. Do these tables show the present yield and cost per ton?—No, we do not collect statistics regarding the costs per ton—only the amount of production and the value of production.

1224. Of course, the yield per ton and cost per ton at the present time, as compared with the past, would be obtained, I take it, from the Chamber of Mines?—Yes, regarding the Witwatersrand mines.

1225. Do these tables also show the total working force on the mines—white and black?—Yes.

1226. In regard to the table, which I see was published in the minutes of evidence* of the Commission

* Mines Department, Union of South Africa, statistics for the month of February, 1914.

* T.G. 2—1908.

which inquired into the mining industry, pages 253 and 255, I do not know whether those are figures which you could give us brought up-to-date?—Yes, a similar table could be given either by me or by the Chamber of Mines.

1227. Could you give it or could we get it from the Chamber of Mines?—As far as the value is concerned, I do not think I could give you that. That is the market value at a particular date.

1228. What we want is this table brought up-to-date?—Well, I think the Chamber of Mines would be in a better position to furnish it than I.

1229. And the table on page 255 also—the upper one?—I am afraid I may not be able to give you that. The position is this, that estimates are made for the purposes of the Profits Tax of the lives of the mines, so that I know on what date they estimate that they will cease production, but the information is confidential.*

1230. Are there any further statements you desire to put in before proceeding to the questions?—Well, I have received a number of queries.

1231. Those we will go through orally?—There is something about the coal resources of the Union, if you would like information about that. It is contained in this publication: "The Coal Resources of the World," which was an inquiry made on the initiative of the Executive Committee of the Twelfth International Geological Congress in Canada. The second volume, p. 411, contains the official statements.

1232. We can take that as being your present estimate?—Yes, it is practically up-to-date.

1233. We do not want to go over the ground covered by the Economic Commission, or into the evidence given by the Chamber of Mines to the Economic Commission, but I would like to ask you one or two questions regarding certain statements made. First of all, what is your view as to the estimate of the life of the mines furnished to the Economic Commission by the Chamber of Mines?—I should like to point out, in the first instance, that the Chamber of Mines did not furnish an estimate of the life of the Rand; they furnished an estimate of the life of the producing mines.

1234. And that is to say the life indicated will be increased by the life of the mines not yet producing?—Yes; or not yet existing. There are certain areas which do not belong to any companies at all—open ground.

1235. Which areas would increase the estimate given of the life of the Rand?—Considerably. As far as the estimate of the life of producing mines is concerned, I have no serious criticism to offer on the estimate of the Chamber of Mines. Their estimate, I think, was 550 million tons of payable ground which can be taken out of these mines. My estimate is 587 million tons. I would like to explain, in that connection, that the Chamber of Mines made no estimate of the tonnage to be derived from other areas not belonging to producing mines, and such estimate is very difficult to make. The data are very uncertain, and such data will naturally, in the course of years, alter very greatly. If we look back at the estimates which were made ten years ago, and compare the data then assumed as to cost of production and pay limit with the same figures to-day, there is a very great difference, and the same thing will happen ten years hence—the same change will have been made again. Take the cost of production ten years ago. We could not indicate then in what direction economies would be effected, and to-day we are in the same position, but nevertheless it is practically certain that economies will be effected.

1236. Comparing to-day with ten years ago, has there been a great diminution in the cost of production?—Very considerably. I cannot at the moment give you the exact figures, but it is probably in the neighbourhood of 6s.

1237. And do you indicate as probable a further reduction of a similar nature?—I certainly think it probable. I am not able to indicate the direction in which these economies will be effected, however.

1238. And you cannot indicate the causes which will produce those economies?—Exactly, but, roughly, I may say that, as far as other areas to be still opened on the Rand are concerned, it is not improbable that they will yield as much as the existing producing mines.

1239. As much gold or payable ore?—As much payable ore. I am taking them on a very conservative basis and discounting very largely.

1240. You say the areas not yet touched by producing mines will yield as much gold as is produced by what?—By the existing producing mines.

1241. What the existing producing mines have produced up to now?—No. The 587 million tons is what I estimate they will produce. The amount of payable ore in the areas not yet belonging to producing mines will be at least equal to that.

1242. Now what capital do you estimate will be required for the development and exploitation of that area?—That is a very difficult question to answer. I can only give you an idea of the order of magnitude—whether 500,000 or 5,000,000 or 50,000,000. I think the order of magnitude will be between 50 millions and 100 millions of new capital required. Put it at 50 millions for the time being. But it is more of a guess than anything else.

1243. That estimate is based upon the capital recently required for development of certain areas in that locality, is it?—Yes.

1244. Well, now, you indicate a probable further considerable reduction in the cost of working. Will that proceed from further economies in the use of native labour or white labour or stores?—I would not put it in the direction of economy of white labour and native labour and stores, but rather in the direction of efficiency. We divide the costs of working between white wages, native wages, and stores, and to effect economies you must reduce one or the other, or all three. I think the chances are that all three will be reduced, not so much by reduction of wages as by increase of efficiency.

1245. The individual worker will receive as much as or more than he receives at present, but his work will be applied to better effect?—Exactly. I can give you some figures as to efficiency increase in the past as far as tonnage is concerned. I may say the tonnage has increased per head of labour employed. In 1904 and 1905 we milled 103 tons per coloured person employed. In 1910 it advanced to 131·9 tons, and last year it advanced to 143·3 tons, so since 1904 and 1905 up to 1913 there has been an increase of nearly 40 per cent. in the tonnage milled per coloured person employed.

1246. Have you any similar figures for white labour?—It has gone up from 801·9 to 1149·2 tons.

1247. Is that owing largely to the further introduction of rock drills?—Very largely.

1248. Can you give the proportion of machine drills to hand drills?—I can give you the tonnage broken by machines for 1913 as compared with the total tons of rock hoisted, which will give you a fair idea. The total tons broken by machines in 1913 were 13¼ millions; total tons hoisted 29,832,000. So the tonnage broken by machines is thus nearly 45 per cent. of the total hoisted.

* Mr. Kotze subsequently explained that the information in question was regarded as confidential only as far as regards particulars as to the probable life of individual mines, and he accordingly furnished the following table showing the number of mines that would cease production at different dates based on the lives as fixed for Mining Taxation purposes, together with the number of stamps they dropped, the value of gold they produced, and the dividends they paid during 1913:—

Period.	Number of Companies ceasing operations.	Stamps dropped by these Companies during 1913.	Value of gold produced during 1913.	Dividends paid during 1913.
			£	£
1914	2	140	224,929	28,875
1916	3	570	1,820,047	635,000
1917	3	390	1,755,317	613,500
1918	5	520	1,465,921	457,402
1919	2	255	631,676	204,000
1920-1924 ..	10	1,090	4,074,393	1,184,466
1925-1929 ..	10	2,575	8,268,791	1,615,301
1930-1934 ..	3	960	2,240,438	359,056
1935-1939 ..	7	780	3,591,117	587,617
1940-1944 ..	2	840	3,861,368	1,034,116
1945-1949 ..	3	1,130	4,579,286	931,806
Total ..	50	8,950	32,513,283	7,651,139

Note.—In addition to the above 50 mines there are 8 other mines whose lives on present milling capacities exceed 38 years.

1249. The point that interests us is whether those figures indicate, in your judgment, further room for the introduction of machines?—Certainly.

1250. Large or small?—I think the smaller machines will increase more rapidly.

1251. Well, you have given us a very interesting forecast of further economies to be effected. Does that opinion of yours indicate that you think that the present labour force is not being employed to the best advantage, or not?—I will put it in this way, that the present labour force is being employed to the best advantage as far as the people who are using it know, but their knowledge and experience will increase in the future, undoubtedly.

1252. Are there very considerable further economies to be attained by further amalgamation or more unity of direction?—Well, amalgamations have already taken place to such an extent that there are not many more companies to be amalgamated in that way.

1253. You do not see any further progress in that direction?—There will probably be further amalgamations, of course, but not to the same extent as in the past.

1254. Is that one of the reasons for anticipating cheaper working costs?—Yes, slightly. I do not think amalgamations will contribute very largely to that any more.

1255. Have you any tables of the mines now producing, showing what proportion are making no profit or a very small one?—No, I have no direct returns. I do not get figures regarding costs.

1256. I think there has been a considerable reduction in railway rates, for instance, since Union came about?—Yes, but I am afraid I cannot give you an opinion.

1257. You cannot give us the effect of that upon the industry?—No.

1258. Now regarding the respective spheres of white and coloured labour. What are the Mining Regulations on that subject?—Well, it varies in the different Provinces. There is practically no colour bar in the Cape Province, but there is in the Transvaal and Free State. We consider that the native is practically incompetent to exercise certain functions for the purpose of providing for safety in mines. For example, he cannot hold any certificate of competency either as a mine manager or a mine overseer, or a mine surveyor or a mechanical engineer, or a winding-engine driver, or be the holder of a blasting certificate in the Transvaal.

1259. What is the reason for the divergence of practice in the Transvaal as compared with other parts of the Union?—It is a continuation of the policy that existed before Union came into force. There was no legal colour bar in the Cape.

1260. It is an accidental continuation of the previous order of things?—Yes.

1261. Is there any particular Government policy in regard to that?—No. The policy of the Government, I take it, at the time was to follow the line of least resistance and take things as they found them, until circumstances arose which would compel a change.

1262. And so far no change has occurred?—No; practically none yet.

1263. Now, the Economic Commission have drawn a great deal of attention to the subject of the extreme instability of white labour here. The white miners, particularly the underground men, shift about from one mine to another to an abnormal extent?—Yes.

1264. Can you give us any figures, or state your view, as to the causes of that instability?—The evidence of that Commission will, of course, indicate what figures I then placed before them. I could only give you the same figures now.

1265. That is practically up-to-date?—It was about two years ago. There may have been a slight improvement since then. Prominent attention has been drawn to the matter, and, possibly, the number of changes is not so great as before.

1266. You cannot say definitely whether any considerable improvement has taken place?—No.

1267. Can you give us your personal views as to the causes of what appears to be an abnormal condition of things?—Well, as far as the men themselves are concerned, it is partly due to the facility with which work can be obtained at one mine as compared with another. For instance, a man is dissatisfied with the conditions on one mine. He finds it is not very difficult to get a job at the next mine. The reasons for his dissatisfaction are numerous, naturally. One of them, no doubt, is the contract system. That is largely a cause of dissatisfaction—the continual hunting after the big cheque.

1268. That makes a man go from one mine to another?—Yes. And then, besides that, the miners, very largely, have no fixed homes. They have not got their own houses. If they had they would probably think twice before leaving a particular mine.

1269. Then, a large proportion of the miners roam up and down?—Yes, a very large number.

1270. Do you think that is conducive to efficiency?—No, certainly not.

1271. And you think the main reason of it is the contract system as applied to white labour?—Largely. I would not say it is the main reason, but it is one reason. Even on day's pay and bonus a similar thing takes place. It is the facility with which you can obtain work and the facility with which the management or mine overseers can obtain other workers. There is mutual dissatisfaction.

1272. I think the figures which were given before the Economic Commission were that more than 50 per cent. of the men had been at their present mine less than six months?—Yes. I have not seen it put in that form, but I think it is so.

1273. You have no detailed figures on that point?—No.

1274. Then, do you advocate the policy of day's pay with or without bonus in its present form?—I do not advocate it as a policy, legally or universally, but I advocate it being tried by the mines more largely. Some mines have tried it and some have found it unsuccessful, as a matter of fact. Of course, that is no proof that it is a bad system. Very often people try a system and they are prejudiced against it, and they cannot make a success of the new system.

1275. With regard to native labour, the Economic Commission also drew attention to the desirability of giving a greater incentive to good work by a bonus or contract. Have you any views on that subject?—Yes. I think efficiency would certainly be improved by offering an incentive. You heard what the system at Kimberley was. The white man is on day's pay and the native is on contract pay, very largely. They made that change some years ago, and they are entirely satisfied with it.

1276. You have had official experience of both systems?—Yes.

1277. Which do you consider the best?—I consider the Kimberley one the best.

1278. The Commission have read with interest the report by General Gorgas on the health conditions of the Rand. Have you any observations to make on that which you would like to put before the present Commission?—I think his most valuable suggestion was for spreading out the natives, instead of putting them in compounds in the way we do at present. There is no doubt that that would not only improve the health of the natives, which is the main point of Colonel Gorgas's recommendations, but I think it would also improve their efficiency. One would get a stable mining population here, as far as the natives are concerned. Inefficiency on the Rand is due to the fact, very largely, that the natives do not stay long enough. They only average seven or eight months. This also explains, very largely, I think, why accidents are so numerous on the Rand as compared with European countries.

1279. You mean the number of new hands?—Yes. The native is unable to look after his own safety in the same way as a European. He is dependent on the white miner who is in charge of a number of natives. There is no thought, individually, of looking after safety.

1280. Then, in your judgment the adoption of General Gorgas's recommendations would lead to improved health of the natives, improved efficiency, and a diminution of accidents?—Certainly.

1281. And by that you mean what—the adoption of the system of native locations or smaller compounds?—The adoption of the system of native locations. Of course, there are many other things to be considered. You have to bear in mind that there are very serious difficulties in the way of putting this into

practice. It may not be practicable on the Rand. For instance, it would mean that you would have a very large native population, not living as they do in their own country, but living very closely together. Questions of sanitation and control of illicit liquor, and matters of that kind, would become more difficult, of course, than they are at the present time.

1282. Would you say that the industrial efficiency of the native is increasing?—I think so.

1283. I suppose it is increasing more slowly owing to the short period he remains at work, is it not?—Yes.

1284. Have you, in your official capacity, knowledge of the difficulties regarding illicit liquor?—No; that is not a matter that comes within my jurisdiction.

1285. You cannot say whether that is improving or not?—I am not giving any evidence, but my opinion is that it is increasing.

1286. Owing to what?—I think owing principally to the profit to be made out of the business. And the difficulty of control, of course, is very great.

1287. And does it seriously harm both the health of the native and the industrial efficiency of the native?—Yes, I think it does as far as his efficiency is concerned. I do not know that in the short period that he remains at the mine much harm is caused to his health, but I think it interferes with his efficiency very largely.

1288. Can you make any suggestion to improve matters?—I am afraid I have not a sufficiently intimate knowledge of the matter to make any suggestions.

1289. Regarding the methods under which natives are now recruited, have you any views?—No. That is also a matter I am not directly connected with.

1290. Are there any other points on which you would like to be examined?—I think the Commission has already had figures from Mr. Warington Smyth in regard to the mining revenue.

1291–2. Yes, but they are somewhat incomplete. We should like to hear what proportion of the total revenue of the State proceeds from mining sources?—The direct revenue derived during the financial year 1912/13 was 2,359,263*l*. That is from all mines. This revenue is partly taxation. It is divided into three classes—where the Government is practically a partner, as in the case of the Premier Mine, licences and mynpacht dues, which may be considered in the way of rental, and other direct taxation on mining, such as the profits tax.

1293. Outside of that amount you have named, what other taxation does the mining industry bear?—There is no direct revenue from the mining industry besides that. Indirectly, of course, the country lives on the mining industry very largely.

1294. Can you give us the proportion?—It is impossible for me to make more than a guess at it.

1295. I have here a table which I will show you. It has been prepared after inquiry from various Government Departments. I shall be glad if you will take that and give us your observations. We think it important to have some idea, and we quite recognise the extreme difficulty of making a correct estimate. If you would perhaps consider that at your leisure and furnish us with any comments, we shall be much obliged?—Yes*. On the question of the iron resources of the Union, I think the Commission has had some information.

1296. Yes, but we should like to have your views?—I can refer the Commission to other sources of information contained in our publications, of which I have some copies here. I am sorry I have no spare copies. The matter was first dealt with in a memorandum of mine in 1909. Then there is a report from Mr. Harbord on the manufacture of iron and steel in the Transvaal, issued in 1910, and the Annual Report of the Mines Department for 1912; on page 175 there is a description of a very promising occurrence in the Transvaal at a place called Kromdraai. And in the Report for 1909/10, on page 73, there is a description of a number of other deposits in the country which are not so promising as that of Kromdraai.

1297. Will you give us the documents?—I am afraid I cannot give them to the Commission, as they are the only copies I have.

1298. We will give you them back. Now, with regard to coal: You have already given us a reference to the latest information on the subject?—Yes.

1299. Have you anything to add verbally to that as far as the coal resources are concerned?—No. Our knowledge of the subject has not increased since those figures were issued. At the present time I may point out that the coal exploited is naturally near the railways. It does not pay for long branch lines to be constructed to outlying parts. You may have heard in Natal, possibly, that coal is getting scarce, but that means coal in the neighbourhood of the railways.

1300. Not that the field is becoming exhausted?—No, I do not think so.

1301. Have you considered the question of the export of South African coal to oversea ports or its use for bunkering purposes, and the possibilities of development in the trade with India?—Yes; there are very great possibilities, but, of course, we have to compete there with European coal and Indian coal, and it is a question of price very largely.

1302. Now with regard to diamonds, we had evidence both at De Beers and the Premier Mine that, in the opinion of the Companies, those deposits are almost unlimited in life?—Practically.

1303. Now what is your view as to the impoverishment in depth at De Beers or the Premier?—In both cases, I think, there is an impoverishment in depth.

1304. Proceeding at what rate?—I am afraid I have not the evidence available at the moment.

1305. But no such impoverishment as would go near the margin of payability?—No. Of course, the mines at Kimberley earn very high profits. The Premier Mine is not so profitable. In the case of a fall in diamonds, such as we had some years ago, the margin becomes very small, and if the value of stones should again fall the profit would go down. But at present the profit is fairly reasonable.

1306. Therefore, it is essential really for the price of diamonds to remain above a certain level?—Yes.

1307. Then, to remain a payable proposition, the price of the output would have to be increased as the richness diminished in depth?—Yes.

1308. **(Sir Alfred Bateman.)** Could you tell the Commission what powers you have to collect these statistics?—I have powers under the Mines and Works Regulations Act to compel the production of statistics by managers of mines.

1309. Are you the judge as to what statistics shall be furnished?—Yes. Of course, there is always an appeal to the Minister in case I exceed my powers, and if I start collecting too many statistics there is a great outcry.

1310. As a matter of fact, is there any opposition?—Now and then there is, more particularly from small mine owners. The large companies rarely offer any objection.

1311. Have you compulsory powers. Can you haul them before the magistrate?—Yes.

1312. What is the penalty?—The penalty under the Regulations is up to 150*l*. for one offence.

1313. And you can prosecute them again and again?—Yes. I do not think we have had a prosecution for years. We generally find a little pressure or a threat is sufficient in the case of one who does not wish to comply.

1314. Compared with other Departments in South Africa you are rather favoured in having compulsory powers to collect statistics. Statistics are not obtainable by law in any other branch, except the Customs?—That is so.

1315. Can you state the grounds of your estimate that the untouched mines had a potential yield in tons equal to the mines now working—something like 587 millions tons?—The figure is based on what we know of the mines already working, and extending that knowledge to the unworked areas. Of course, one has to be very careful to extend the calculations to areas which are situated, in some cases, miles away from any working mines, and one has to put a large discount factor on it. I think I should indicate that on the Eastern area I take my limit as 5,000 feet, and on the remaining area at 7,500 feet.

1316. And, generally speaking, you are working from the known to the unknown?—Yes. I have divided the Rand into six sections and taken each separately. I take the Far East section. The Chamber of Mines gave the figure as 86,000 claims. I put it at 91,000 claims.

* Mr. Kotze subsequently stated that he had no serious criticism to offer on the estimate in question. A copy of the table appears in Appendix XIII., p. 117.

I allow a final payability of 30 per cent.—and so on with the other areas. The total area is 113,881 claims, according to my estimate.

1317. Of which you say 86,000 are payable?—I say 31,379 claims is the net area payable. We make allowances for faults, pillars, and dykes, and also an allowance for the unpayable area.

1318. And what result do you arrive at?—The final figure, as far as tons are concerned, is rather more than 600 million tons. I must emphasise again that such an estimate is, in a manner of speaking, an abuse of arithmetic. It is very easy to add and multiply and divide, but if the factors are uncertain your superstructure is also uncertain, and the factors in this case are very uncertain.

1319. Have any estimates been made by other authorities?—Yes, about half-a-dozen.

1320. Are they somewhere near your figures?—No; the variation is very considerable.

1321. Can you give the extremes?—I am afraid I have not them available at the moment. The last authoritative estimate was made, I believe, by Mr. Hatch and Mr. Legat about eight or nine years ago. They arrived at a figure of about 1,300,000,000*l.* to be extracted, and the figure I arrive at is rather larger.

1322. I think you told us that every ten years adds considerably to your knowledge?—Yes, in fact every year.

1323. You spoke about the existing system of payment by contract. Has it ever been considered whether any system of co-partnership or profit-sharing could be applied in the case of these mines—as is done in connection with the London gas companies, for instance?—I do not think anybody has ever given the matter detailed examination and consideration.

1324. You have never considered it?—I have thought of it, but I have never gone into the matter carefully.

1325. You think it would be desirable if it could be done?—Well, it has many points in its favour.

1326. But you have never discussed it with your Ministers?—No.

1327. You spoke about the difficulty of keeping liquor away from the natives. Is it not a fact that seven years ago, when I was here, the Portuguese natives used to have wine supplied to them?—Yes, in their own country.

1328. A bottle of Portuguese hock used to be supplied?—Not here.

1329. Wine is easily obtainable there?—There is no restriction.

1330. We were told it was encouraged by the Portuguese authorities because it assisted the wine industry in Portugal. Is there provision now with regard to Portuguese natives to the effect that they shall have Portuguese wine while they are here?—No.

1331. They are in the same condition as your other natives?—Yes. The sale of intoxicating liquor to natives is prohibited.

1332. I think I understood you to say you were in favour of one of these recommendations of General Gorgas about the families of natives?—I would like to see it tried. I will not say I am entirely in favour of it, because of the difficulties that I have enumerated, such as the control of illicit liquor and the matter of sanitation, and so on. There are many other questions to be considered. It is not a simple question at all.

1333. Has it been tried?—No, not on the Rand.

1334. **(Mr. Campbell.)** The proportion of whites to blacks, in the report of the Chamber of Mines, is given as one to eight. Does that proportion hold for underground work among those employed in mining, or is there a larger proportion of blacks to whites employed underground?—Yes. It is a little higher.

1335. Well, in this report the costs of mining are given for an average mine on the Rand and for average mines in Western Australia, and the figures show that the mining costs in Western Australia—where white labour is employed altogether—are considerably lower than here. What is the reason of that higher cost on the Rand, where labour is so much cheaper?—Of course, in regard to natives they are cheaper than white men, but the white man, on the average, can do more.

1336. There is a very large proportion of natives employed—ten to one, is it not?—Yes. And then the efficiency question comes in. The efficiency of the white men in Australia is higher than in the mines here; and, in the next place, there is the question of the nature of the ore deposits. This is more favourable for cheap exploitation in Australia generally than it is here. We also have mines where we have a very wide body of ore which runs very low in value. Take the Knight's Deep, for instance. The costs are only about 10*s.* to 11*s.*, as compared with an average of 18*s.* for the whole Rand.

1337. Generally speaking, you work a very large body of homogeneous ore, and the costs of mining must be rather in favour of the Rand?—You are speaking of a large body, but that is not what I mean. Our reefs are narrow, compared with those of Australia, and flatter. In that country they are pretty well all vertical deposits which are wide, and they lend themselves to cheaper exploitation.

1338. Does that make a very considerable handicap on the Rand?—Yes.

1339. But, generally speaking, you would say, too, that white labour here is less efficient than in the mines of Western Australia?—Yes, white labour is less efficient, and coloured labour very much less efficient.

1340. In reply to the Chairman, you gave as one of the causes, I think—if not the only cause besides inefficiency—the contract system, which sends men from one mine to another?—Yes.

1341. You gave as the reason for the comparative inefficiency of white labour here the contract system?—No. My reply regarding the contract system related, I think, to the frequent changes which take place as being one of the reasons for the inefficiency, and I said that these changes were often due to dissatisfaction in connection with contracts.

1342. And you gave it also as a reason for the inefficiency of the labour, I think?—No, I do not think so.

1343. Well, what is the reason for the inefficiency of the white labour here?—The inefficiency is due, in the first place, to the fact that the miner is not so good as he is abroad.

1344. Why is he not?—Let me make it clear. In many instances the miner in this country does not do the same work as he does in Australia or in Europe.

1345. But the climate is the same?—Yes, but he is an overseer here and a miner over there. He only superintends labour here; he does not do any actual work.

1346. That brings it down to the fact that it is black labour that is employed in actual mining, and white labour only in supervision?—Precisely.

1347. That seems to come back to the fact that black labour is altogether inefficient as compared with white labour?—Yes. But I want to make that point clear, that the white man is very largely an overseer in this country: and, in the second place, I want to say that the miner, as a miner, is inferior to the Australian miner, for the same reason that he does not do the work here, and he has not the same chance of learning the work. The method of training a miner locally is not the same as in the rest of the world. He does not learn the work as he does in other countries.

1348. Does not that line of argument rather bring you round to the conclusion that the employment of white labour altogether in mining would be cheaper than the employment of black labour?—If your conditions were changed. If you could take our mines in a balloon to California or Australia you could work much more cheaply than we do probably. But we have our conditions, and we have a certain class of white man with a certain standard of living, and black labour working, too. Their efficiency and pay are low. And those are our conditions.

1349. With the entire employment of white labour, do you not think that the conditions here would approximate to Australia?—No, you cannot get rid of the conditions. We have the black labour. The white man lives among the blacks and he has a standard of living which is quite different and probably higher than in Australia. You can assume certain things, of course, but that is only an academic discussion. You cannot alter the conditions in this country so rapidly. If the number of payable mines increased largely and they were very profitable—and we do not get enough coloured labour in the country—it is possible that by

force of circumstances the mineowners would be compelled to employ white labour more largely.

1350. There is not much likelihood of that is there—the tendency is all the other way?—At the present time, yes.

1351. Now do you think that the white man's inefficiency here is in some way due to the extra danger to life by reason of the disease and accident on the Rand, as compared with elsewhere?—No, I rather put it down to miners' phthisis—an industrial disease. It is a fact that it has encroached on the number of miners. If the miner has only an average life of ten years, instead of having an experienced man of twenty years you are going to have a new miner of say only five years' experience. He cannot be so good, naturally. For the last two years we have been carrying on a very extensive campaign against phthisis, and we are gradually altering those conditions.

1352. And you think that with improved conditions efficiency will increase?—Yes, and I think that a little more care should be taken of the training of our white miners. They are being recruited more and more from South Africans, and unless greater care is taken in training the worker to efficiency, they have not much chance of improving. We have about fifty boys at one mine learning, and we train them as boys are trained in other parts of the world: they do the work the same as kaffirs in order to learn it thoroughly.

1353. Is technical instruction available here of a very high order in connection with mining?—We have the Mining School, where we train them to do the ordinary work of a miner.

1354. Is it efficient?—Yes, I think so.

1355. Are the men who go through the School of Mines fitted to take positions elsewhere?—You are, I presume, now speaking of the School of Mines. That is an engineering institution. I was rather talking about the Miners' Training School—that is a different institution.

1356. Men can move away from here who have been trained in the School of Mines and take responsible positions?—Yes.

1357. In reply to the Chairman—I did not quite understand the answer you gave. Speaking of the estimated life of the Rand you said the reserves of ore would yield as much ore as the present producing mines. Did you refer to the proved resources of ore in producing mines?—No, I did not say as much as already produced. The position is this. We take the producing mines and estimate the tonnage still to be mined in those mines. That is an estimate that is also based on certain factors which we have, and we estimate a certain tonnage is to be drawn from those mines still. That is 587,000,000.

1358. It was that ore you were referring to?—Yes. And there are certain other areas which do not belong to existing producing mines which will in future, and from those we expect a certain further tonnage.

1359. And you expect that the untested reserves will yield as much as the mines already being exploited?—Yes, I think so.

1360. **(Chairman.)** What is the total amount mined up to now?—I can supply you with the figure later.*

1361. **(Mr. Lorimer.)** Does your Department interest itself only in mines in actual operation, or does it take cognizance of known deposits of minerals which have not been developed?—We take cognizance, but naturally we do not pay as much attention to those as to those which are being exploited.

1362. If we wanted the fullest information that can be had on the subject, to whom should we refer? Would the Chief of the Geological Survey be the proper party, or have you any information?—Which mineral are you referring to particularly?

1363. Well you have so dazzled us with the enormous wealth of your gold and diamonds that we are apt to forget that you have anything else of consequence. In travelling through the country I have heard from time to time a good deal about coal and iron and copper along with other minerals. I should like to ask one or two questions about these. I notice in this book that the estimate of the coal in South Africa amounts to something like between 40 and 50 thousand million tons. Now, by whom were those figures prepared?—By my Department, partly by myself and officers under me, and partly by the Geological Survey.

1364. And the Heads of the Department regard them as reliable, I suppose, or they would not be furnished?—Precisely. You will find in the report to what extent they can be considered reliable. They are not absolutely reliable, of course.

1365. But approximately so. I notice you gave figures of the grand total: do you know how this total is distributed over the different Provinces?—Yes. In the second volume of this publication, on page 411, there is a detailed estimate showing the various Provinces.

1366. We can get it there?—Yes.

1367. Then in regard to iron: you appear to have iron everywhere—in all the Provinces except the Orange Free State. There appears to be enormous quantities in the Transvaal and in the Western Province, some of inferior quality and some of very high quality?—Yes.

1368. Have you any general statement prepared as to the actual quantities of that, the same as you have of coal?—No, for the simple reason that the deposits have never been opened up.

1369. I was talking to one man about a large deposit near Prieska, and he seemed to think that the Government knew little or nothing about it?—It was only recently discovered, and the Government has not made any very careful investigation about it yet.

1370. In the pamphlet as to iron which you have sent in, I notice that the writer—Mr. Harbord—speaks of the extreme difficulty of finding a market for your finished products in this country, and he quite well understands that to convert your ore into the ultimate product—the finest forms of steel—would involve an expenditure on plant for which you are not likely to get any return at all. Now, has it ever been discussed among you—have you ever given any consideration to putting up blast furnaces and making pig iron, and shipping it to Europe?—Yes, there are parties who have given the matter consideration, but it has never gone any further than discussion.

1371. What would be your difficulty about that? What is in my mind is this. The iron would be very very cheap to produce on account of the supply of coal here, which is cheap. I do not know whether you have dolomite or limestone in proximity to these fields or not, but, supposing you had, you would get very cheap railway freights, and I imagine you could send that as sponge or pig iron to Europe at a price that would pay very well. Nobody has gone into it?—Yes, but never to the extent of putting up the money.

1372. About the copper: I have heard about the Cape Copper Company and the Namaqua Copper Company in the same district, and I have had a pamphlet about the Messina Company. Are there any others in South Africa?—No, those are the only producing copper mines at the present time.

1373. The Messina seems to be going ahead fast?—Yes, it is.

1374. I noticed in your paper that you have in the Transvaal in the year 1911, two thousand tons of copper shipped, and now you are producing at the rate of 1,500 tons a month; is that on account of the Messina production?—Yes. Those figures are Messina entirely.

1375. There is no such increase in other mines?—The figures you have are for the Transvaal only, I think.

1376. In what shape is that copper sold; do they make a matte of it?—The copper at Messina is sold partly as mineral and is shipped direct as approximately 50 per cent. copper.

1377. After passing through one furnace? No. This is simply mineral ore. The rich ore is shipped direct and the poorer ore is concentrated into a matte in the furnaces.

1378. You have no silver?—No, except what is found in with the gold on the Rand, principally.

1379. What about tin?—The production is given in the table before you.

1380. 3,600 tons in the course of the year. Are the mines alluvial?—Not alluvial in the Transvaal, as a rule. Alluvial tin is won in Swaziland and in the Cape, but not in the Transvaal.

* *See* Question 1489, p. 50.

1381. Are there large quantities of tin?—Yes.

1382. And lead?—Yes, we have some lead in the Western Transvaal and in the neighbourhood of Pretoria.

1383. Is it being worked?—To a small extent. I do not think the production recently has been of any note at all.

1384. You have no such deposits as will rival Broken Hill?—No, nothing like it.

1385. Of the lesser metals you have an increasing quantity?—Yes.

1386. You have asbestos, graphite, manganese, and zinc?—Yes. We have also promising deposits of zinc which will probably be worked in the future to a considerable extent.

1387. Where?—In the Western Transvaal.

1388. Which have not been largely developed?—Yes, but the plant is not yet erected for concentration.

1389. If I might refer for a moment to the coal: you have here the relative percentage of waste in each of the four Provinces. The waste in the Natal coal is enormous as compared with the others. Is it due to the quality or the method of working?—The waste is largely fine coal—duff. Some years ago the duff was not burned at all. It was about 30 per cent. But now the large power companies, such as the Victoria Falls and other power-producing corporations, burn it, and there is less waste.

1390. Another point that struck me was this: I see the value of Cape coal at the pit's mouth is twice what Natal is?—Yes.

1391. Is it better quality?—No. It is poorer. But it is less inaccessible, and the others cannot compete with it.

1392. I want to refer to an answer you gave to another gentleman. I gathered that you said, in respect of the mines, you would like to see the contract system superseded for the white men and day's wages for the coloured men; is that it?—No. Day's pay for the white men and the contract system for the coloured men.

1393. Is not the white man on day's pay now?—No, very largely on contract.

1394. Then if he is simply a supervisor, how do you arrange the contract?—The basis is that he gets so much per fathom of ground broken, and from that is deducted the cost of his stores and the wages of his natives.

1395. You say the industrial efficiency of the native is increasing. Do you find great variations in the intelligence of these men?—Yes. Some are extremely intelligent; as much so as the white men.

1396. Some would do as good work as the white men if they were allowed?—I think so, with training and education.

1397. **(Mr. Sinclair.)** When you gave us a rough comparison of what could be produced by future mines, was that estimate based on any boring operations or examination of the untouched ground?—No. The boring indications would only give the depth of the reef.

1398. Some have taken place?—Yes, and we can estimate the approximate depth at which the reef lies in those various areas. But they give very little indication as to value.

1399. Is there any considerable variation in the grades of richness of the ore?—Certainly, from non-payable up to very profitable ore.

1400. And do you take an average in estimating as to the unknown?—Yes. I take an area and allow a certain percentage for unpayable ore. Take a large area of, say, 5,000 claims, well, from the information at my disposal I might consider only 30 per cent. of the ore in that block would be payable.

1401. Is it possible that one of the advances of the future will be the working of grades that are not at present payable?—Certainly.

1402. That, then, is one direction in which you think there may be considerable development?—Yes. On account of the reduction in cost.

1403. You were asked a question on the subject of profit sharing. That would be rather complicated in South Africa, would it not, by the fact that a large part of the work itself is done by coloured labour?—You need not have a profit-sharing system with your natives.

1404. That would involve excluding those who do the actual work?—As far as the system is concerned. Of course, you could have the system the other way.

1405. It would complicate the introduction of such a system?—Yes, and it would be still further complicated by the fact that the white men change so rapidly.

1406. White miners who are being trained to do the actual work at the mining schools, what do they do when they leave? Do they do the actual work then?—No, they are overseers in the same way as the others.

1407. But they have had the advantage of being trained in the knowledge of how to do the work itself?—Precisely.

1408. As regards the future of the industry, have you assumed that the wages will remain as they are now?—Yes.

1409. A question or two on the subject of the instability of white labour. Did I understand you to suggest that their not having homes in any particular locality conduced to workers moving about?—I think so.

1410. Has anything been done by the mines to encourage workers to establish homes and to help them to do so by advances?—Yes. Many mines have built cottages for married people; in fact, most of them, and they let them at low rentals.

1411. Which includes a sinking fund, perhaps?—No, it is not the hire purchase system.

1412. Are they entitled to acquire them?—No, but recently one mine has projected such a scheme. It has been taken up to some extent.

1413. Is it a system by which the payments will in time wipe out the purchase cost?—Yes.

1414. I would suggest that, in other directions which I have in mind, that system has worked exceedingly well, and has resulted in time of trouble in those who have acquired homes being less inclined to leave the place and move away?—I think it must have that effect, naturally

1415. One of the causes which you suggested for moving about was their eagerness to take up contracts. Is the contract system of labour by white men encouraged or discouraged by the trades unions in South Africa?—The contract system is discouraged officially by the trade unions.

1416. You referred to the report of General Gorgas, in which he advocates spreading out the natives; would that not involve very large numbers of the natives settling down in spots adjacent to the mines?—Precisely; they would become permanent inhabitants on the Rand.

1417. Is there not objection to the congregation so near a large town of such a multitude of native people?—I have already indicated a number of objections to it; especially in regard to liquor and sanitation.

1418. You know the conditions under which the natives are located at Kimberley, for instance?—Yes.

1419. Where they remain in the locations for a certain fixed time. Do you think that the surroundings under those conditions are less healthy and tend less to prolong life than in the normal conditions outside?—No, I do not think there is any influence on their life, except in so far as they may be subject to diseases like pneumonia, and other diseases due to overcrowding.

1420. And do you think that they are as well placed as if they were spread out in the locality of Kimberley, for instance?—No, I think if they were spread out—not in the town, but outside—and living with their families, their health would be better.

1421. You think then that, favourable as the conditions are under which they are located, they would be still more favourable provided they were living in the outskirts outside the town?—Yes.

1422. You have not spoken, and you do not propose to speak, I gather, of disease in mines, do you?—As far as disease is concerned—miners' phthisis is the principal one, and I have an intimate acquaintance with that subject if you wish to question me.

1423. I do not want to question you in detail, but are there any suggestions that you think would be helpful to the Commission in the direction of minimising the number of deaths from disease?—Of course, I could give you the particular methods which we are

enforcing now for the prevention of miners' phthisis.

1424. By the Government?—Yes.

1425. It would be interesting to hear that.—The method of preventing miners' phthisis is shortly that of reducing the dust in the mines by the application of water, making the mines as wet as possible.

1426. The two chief menaces to the health of miners are dust and the gases brought about by the explosions?—Yes.

1427. As regards dust, that can only be materially diminished by systematic spraying?—Yes, the application of water.

1428. And I take it that it would come within the functions of the department that you control to examine and supervise as to the sufficiency of the efforts that are made to minimise that evil?—Yes.

1429. And is it your opinion that all that should be done is being done?—All that we know is being done to a certain extent. Of course you must allow for the natural tendency of human nature. There is a sort of average inefficiency. Some people are anxious to do all they can, and even more than the law lays down, and some have to be forced.

1430. Then you look in the future to developments or discoveries which will, it is to be hoped, still further reduce the death-rate?—Yes.

1431. As regards gases that are produced by explosions; are they looked after, and is everything done to minimise the evil?—Yes, after blasting has taken place the fumes are dissipated as rapidly as possible, in some mines artificially and in others naturally.

1432. Has artificial ventilation to be adopted very largely in the mines in this locality?—Yes. And it will have to be adopted to a still larger extent in the future as the mines get deeper.

1433. Is any substantial proportion of the disease that seems to be inseparable within certain limits, from these mining operations, brought about by the use of water that is impure?—We have no indication yet.

1434. That is a phase of the evil, I take it, that is being investigated?—Causing what diseases?

1435. What I had particularly in my mind was the using of the same drinking vessel, indiscriminately, by all and sundry in the mines. Is it a part of the system of control to try to make provision for preventing that?—No, there is very little done in that way.

1436. But that is a direction in which there is scope for advance?—Yes, I think there is, if that is a fruitful source of infection.

1437. I gather from the report of General Gorgas that it is suggested as a source of infection, and with that knowledge, I take it, everything that can be done will be done to minimise the evil?—Yes.

1438. **(Sir Jan Langerman.)** Do you consider that the amalgamations that have been brought about in the past have been conducive to the benefit of the country, the shareholder, and the worker?—Yes, I think many of the amalgamations have been conducive to good results.

1439. Do you think if that system of amalgamation were extended it would have the same results?—In some cases I am not quite so sure that continued amalgamation would improve the conditions.

1440. What would be the difference? If the smaller ones are good, surely the larger ones would not greatly militate against it being desirable?—The control of a very large property becomes more difficult the larger it is. The management of an exceptionally large administration means exceptional ability. It is difficult to find gentlemen with such exceptional ability. They do not walk about with labels on their backs.

1441. They have been found for the existing amalgamations?—Let us hope that they are satisfied with them.

1442. Supposing that the whole Rand were to be amalgamated, would there be any advantage in it for the country, the worker, and the shareholder?—If the whole Rand were amalgamated the advantage to the shareholder would be very great, I think.

1443. To the country?—It might help the country.

1444. To the worker?—I think there would be, on the whole, a better and more contented body of workmen.

1445. So that, in your opinion, there should not be very much objection if it could be carried out, and the geniuses you refer to could be found?—From an engineering point of view there would be no objections. From the political point of view there might.

1446. You based your idea of the increase in native efficiency on the larger number of tons hoisted in relation to the natives employed on the mines. Is that a fair basis?—No. It is not, because the tonnage is more largely broken by machines to-day than years ago, and, consequently, the tonnage must go up per native. But it indicates that the native as a unit is doing more work than before, owing to mechanical assistance.

1447. Not by actual rock broken himself?—No.

1448. Have you any data in regard to his efficiency in regard to actual hand labour?—No.

1449. So one cannot say, in regard to actual experience, that he has increased in efficiency?—You may be able to get some evidence. I have none.

1450. You could not give us the percentage of stope drills and development drills?—No.

1451. Now, on several mines, to your knowledge, we are simply working at a loss. Now, the country is largely interested in those mines. Should it not be the duty of the State Mining Engineer to point out to the Government, in regard to those assets of the State, that their profits are being depleted unnecessarily, and those mines should be stopped and only allowed to work during such time as a profit could be shown?—The State cannot prevent any mine owner from working his mine at a loss.

1452. But the State is a partner surely, and it is losing by an unpayable mine working?—In what way?

1453. In regard to the Profits Tax, for instance?—If you stopped the mine the State would not only get no Profits Tax, but it would also lose because the mine would shut down.

1454. But it could be worked later on?—It might be.

1455. It is no loss then, really?—I consider it would be a false step for the State to step in and say that because a mine is working at a loss it should close down.

1456. Although you see before your eyes the assets of the State being depleted and the country getting poorer?—I do not see that the assets of the State are being depleted to the disadvantage of the State.

1457. Does the State draw a benefit?—Yes, money is circulated by the working of the mine.

1458. There is an indirect benefit, then?—Yes, which is far greater than the benefit derivable from the Profits Tax, in my opinion.

1459. Now, in regard to advocating that the natives' wives should come here, do you think there is room to place 250,000 wives and children in the neighbourhood of the mines? Do you think it practicable?—There is room if you want it—there is the whole veldt.

1460. You appreciate the fact that it would mean the natives in the immediate neighbourhood of the mines?—Yes. It depends on the definition of the term "room."

1461. You would have to give the kaffir his ploughing land and grazing?—It depends on how large a piece you mean to give him.

1462. Do you think the finding of room in the immediate neighbourhood of the mines would be any objection to getting the natives' wives and children there?—I do not say all of them. After all, the project would not be to find room for 250,000 at once.

1463. We have a considerable amount of room and could put a large number here?—How large a number I would not like to say.

1464. Do you think it would be a benefit to the white population to have these multitudes of natives round the town?—That is a very wide question. I am not prepared to give an opinion directly.

1465. You told us that white labour was inefficient and black labour was very inefficient. Now there is a difficulty in bringing the efficiency of the white labour up because the white man has no means of learning his trade. Now would not that be a reason, then, for the black labourer being encouraged to be a skilled workman and this colour bar being removed?—Yes, I think that would increase the efficiency of the worker in that way.

1466. Because his inefficiency to-day is due to his inability to rise in his profession, the black man is kept down?—Partly, but I think more largely to the fact that he only stays a short period.

1467. But if he could rise in his work, do you not think it would encourage him to remain longer on the mine?—I think it would, in the case of a few natives, but not in the case of the bulk.

1468. I am not speaking of the 250,000, but if one per cent. took the place of the white people, it would be to the advantage of the Rand?—It would lead to more economical working if you could get a small percentage of the natives to do the work as efficiently as white men. I think the percentage, however, would be very small.

1469. It would be of advantage if the native were encouraged to rise in his profession and to give him more stability here and induce him to remain longer on the mine?—Advantage to whom?

1470. To the mines and the natives, too.—It may not be to the advantage of the country.

1471. In what way?—It is a very controversial subject. It is the much vexed question of white and black labour, which has been argued for years past.

1472. But we are talking economically, which is the best for the shareholder and the country?—From the economic point of view I can give you immediate information. It would be to the advantage of the industry.

1473. But from the country's point of view, would it be to the advantage of the country to import white labour when we have black labour on the spot? Must we not recognise that?—It might be to the advantage of the country; I do not know.

1474. How long does it take a man to get a blasting certificate?—About eight months at the present time.

1475. What is the average time in Europe for a man to learn his trade as a miner?—I think from three to five years.

1476. And here a man gets his certificate in eight months, and then he is a full-fledged miner to all intents and purposes?—Yes.

1477. Do you not think in giving him that certificate you contribute to the inefficiency of the miner?—Well, if we made it longer, in what way would it contribute to his efficiency?

1478. Surely you know a man cannot be a qualified miner in eight months, and yet you grant him a certificate?—In the first place, a blasting certificate is no guarantee as to the efficiency of a miner. It simply permits him to do certain work for safety. Whether he has a blasting certificate after he has been working for eight months or not, it makes no difference. He goes on gathering experience.

1479. But that certificate is taken by the mines and is accepted as a Government guarantee that he is qualified.—I do not think it is.

1480. But do you not advocate that no man should get a blasting certificate unless he has been working underground for a certain period, say, two or three years?—If you did that there would be a shortage on the mines and they would soon start raising objections probably.

1481. Then you think it would be a good thing to go in for importing competent white miners?—Yes, I think the mines would benefit.

1482. That would be brought about if the Government Mining Engineer withheld blasting certificates for two years, would it not?—It might, but you would perhaps find your contract rates would go up to an unknown figure.

1483. You spoke about the health conditions of natives in the different compounds. When you compare the health conditions of the natives in the different compounds here with the closed compound system at Kimberley, I take it you are in favour of the open compound?—No. I was in favour of spreading out the natives, as advocated by General Gorgas, to the present system, whether in Kimberley or here. I do not think there is any difference between Kimberley and Johannesburg from a health point of view.

1484. You do not think it would add to the health of the native when he is in a closed compound and gets no liquor and is not brought into contact with different vices? Don't you think the locked-up man would be much healthier than the man who is allowed to roam about?—Possibly, but I do not think it makes much difference.

1485. **(Mr. Bowring.)** I think you told us that the average value of gold recovered on the Rand is 18*s.*?—No.; that is the average cost per ton.

1486. What is the average value recovered?—I think it is about 28*s.* at the present time.

1487. What is the lowest value at which it can be worked profitably?—We have a mine working at a cost of something about 10*s.* 9*d.* or 11*s.* a ton.

1488. And is it paying a dividend?—Yes.

1489. **(Chairman.)** You will send a return of the tons which have been mined?—Yes.*

1490. You said there was an increase in the proportion of South African white miners. Could you give us particulars?—Yes, it is indicated in the last Blue Book.†

1491. I have only one further question. It has been stated that the Mining Regulations are so minute that they somewhat harass and embarrass the industry. What do you say?—It depends on what you call harass. All laws harass the citizen. But if those laws are for our benefit we should not look upon them as harassing us, but observe them. I think that they do add to the cost of mining, to a certain extent, but it is necessary for the purposes of safety. It is the duty of the State to see that reasonable safety is secured.

1492. You do not think they go beyond the necessary line?—No; I do not think they do. For instance, they are not as numerous as similar regulations in most other civilized countries. The German, French, and Australian regulations are far more numerous, and I think even the British ones are too, when you come to look at the special rules which are issued, because in British mines the safety is very largely regulated by special rules issued by the mines, and these special rules for particular mines are considerably more numerous than our regulations, although ours appear to be more numerous because they are contained in one volume, and every miner has to find out those which are applicable to him.

* The witness subsequently stated that the total tonnage of ore raised in the Witwatersrand up to the end of 1913 was 230 million tons, and the amount of gold produced was 90 million fine ozs., valued at £383 millions.

† Page 93 of the Annual Report of the Mines Department of the Union of South Africa for the year ended December 31, 1912 (U.G. 30-1913). The figures there given show that the number of white mine employees in South Africa, who were born in the United Kingdom, decreased by 4 per cent. in 1911 and by 3 per cent. in 1912, whilst those born in South Africa increased by 10 per cent. in 1911 and by 5 per cent. in 1912.

Mr. C. W. Villiers, Mr. B. G. Lloyd, and Mr. Henry Melville Taberer, J.P., representing the Native Recruiting Corporation, Ltd., and the Witwatersrand Native Labour Association, Ltd., called and examined

1493. **(Chairman.)** You have been good enough to prepare a short statement regarding native labour. Would you kindly read it?—**(Mr. Villiers.)** Yes.

The following statement by the Witwatersrand Native Labour Association and the Native Recruiting Corporation *re* Native Labour was read by the witness.

(1) *Recruiting of Natives.*

Natives for the mines are obtained in the following ways:—

(1) Natives from Portuguese territory are recruited by the Witwatersrand Native Labour Association;
(2) Natives from British South Africa are recruited by the Native Recruiting Corporation;
(3) Independent labour contractors;
(4) Local natives;
(5) Voluntary natives.

With reference to the Witwatersrand Native Labour Association, all the gold mines in the Witwatersrand area are members, also the collieries of

the Transvaal and Free State, and the Premier Diamond Mining Company.

The Native Recruiting Corporation recruit natives from British South Africa south of lat. 22° S. for about 85 per cent. of the gold mines of the Witwatersrand, the other gold mining companies making their own arrangements through independent labour contractors.

Both the Witwatersrand Native Labour Association and the Native Recruiting Corporation have agents through the territories in which they operate to recruit and forward natives.

Local Natives.—These are natives who change from one mine to another during their stay on the Rand, and those who have originally taken up work outside of the mines and who transfer to mine service.

Voluntary Natives.—A considerable number of natives come direct to the mines from their homes unassisted by any recruiting agency.

(2) *Medical Examination.*

The natives are medically examined before leaving their homes, and are again examined in Johannesburg, in the case of Portuguese natives, by the medical officer attached to the Chamber of Mines, and, in the case of British South African natives, by a Government medical officer. A further examination of the natives is made by the mine medical officers on their arrival on the mines.

(3) *Compound Management.*

Compound managers are licensed by the Government, and are responsible for the housing, feeding, and general well-being of the native labourers.

(4) *Duration of Contract.*

Natives recruited from Portuguese territories are registered to work for a period of one year. Natives recruited in British South Africa are registered to work for periods of from three to twelve months, the majority being registered for periods of six months. Voluntary and local natives engage themselves for periods of from one to twelve months. The majority of these natives engage for one or three months.

(5) *Re-engagements.*

A native who, at the expiration of his contract, wishes to continue working on a mine can re-engage for any period he likes, usually from month to month —or he may elect to leave the mine and find work on another mine, engaging himself for any period he likes up to twelve months.

1494. It is somewhat difficult to understand the precise spheres of the two corporations which you represent. Can you put it in simple language and explain the reason for these two bodies?—Yes. The Witwatersrand Native Labour Association confines its operations only to Portuguese territories and the Native Recruiting Corporation entirely to British South African territories for about 85 per cent. of the industry.

1495. Then the two do not compete with one another in any specified area?—No, not at all.

1496. The Witwatersrand Native Labour Association works outside the Union and the other organisation inside it. Is that it?—Yes.

1497. And the one serves the whole industry and the other serves 85 per cent?—Yes.

1498. And it competes in the Union of South Africa with the remaining 15 per cent.?—Yes, that is so.

1499. Now can you give the Commission the total cost of recruiting for the whole industry?—Yes, about 650,000*l.* per annum.

1500. Does that include everything? The figure stated before the Economic Commission, I think, was one million?—I think that is too high. That includes the cost of obtaining native labour for the mines. It is nothing to do with compound management or feeding.

1501. Does it include the cost of transport to and from native territories, and so forth?—In the case of Portuguese natives it includes the cost, but in the case of British South African natives, or the majority of them, they pay their own costs of transport.

1502. The native pays it out of his wages?—That is so.

1503. Then can you give us the details of that 650,000*l.*? What does the money go in?—In paying agents to recruit the natives, in paying our staffs, and to look after the natives when they are recruited.

1504. Can you give approximately the figures for each of those heads?—I cannot give them offhand.*

1505. Because the figure at first sight appears large? It is certainly very expensive.

1506. If you take it as the proportion of the cost of intermediaries to the ultimate cost of the labour—the amount coming to the individual worker—it represents a very high proportion, does it not?—It is very high.

1507. Do you know of any other industry where the cost of the intermediary represents so large a proportion of the total amount coming to the labourer?—No, and I know of no other industry which has the same difficulty in obtaining its labour supply.

1508. Is that proportion of cost increasing or diminishing?—It is diminishing slightly.

1509. Not largely?—Not largely at the present time.

1510. Could you tell the Commission in what precise way your agents in the native districts and territories work? What is the normal operation that they carry on?—As regards the British South African native, we make an advance to the native before he comes to work. Those advances are limited by the Government. At the present time it is 2*l.*

1511. They have been 5*l.*, I believe?—Yes, and they have been unlimited. They were fixed at 5*l.* and then at 2*l.*, put back again to 5*l.*, and now brought down again to 2*l.* That is a great inducement to the native to come to work, because it enables him to provide for his family before he leaves, and settle his debts, and it is an inducement for him to have money to spend in the territory before coming to work in many cases.

1512. That advance is made by whom—by the trader from his own resources or by you, and passed on by the trader?—In the majority of cases it is made by us to the trader, and he passes it on to the native. In some cases the trader does it entirely himself.

1513. I see. Then in both cases the native receives a certain advance?—Yes.

1514. Which he presumably spends?—Yes.

1515. And then he has to give his labour to pay off his debt?—Yes, a proportion of his labour to pay off his debt.

1516. He comes here and receives pay at the rate of 2*s.* a day?—That is about the average.

1517. And his food represents a further 10*d.*?—Yes.

1518. Although it costs rather less?—Yes.

1519. I understand about 6*d.*?—Yes, I think so.

1520. And how much of that pay does he send home to his family, or take back with him?—It is very difficult to say, but from reports we have the native is getting more of a spendthrift and is taking less money home. There are all sorts of ideas on the subject, but we have reason to believe that he is taking less home and spending more locally.

1521. So he is less thrifty than he was?—Yes.

1522. How do you account for that?—I think there are more temptations put in his way, and he is getting used to more luxuries. He spends it on luxuries and also a large amount of money on drink.

1523. Illicit drink?—Yes.

* Mr. Villiers subsequently furnished the following particulars:—

Statement of Recruiting and Administration Expenditure for the year 1913.

Native Recruiting Corporation, Limited:

	£
Recruiting Expenses	173,593
Administration Expenses	82,416
Witwatersrand Native Labour Association:	
Recruiting Expenses	170,636
Administration Expenses	39,937
Independent Contractors (Estimated Cost):	234,000
Total Expenditure on obtaining Native Labour ...	£700,582

1524. Do you agree with the previous witness that illicit drinking is increasing?—I think it is at the present time.

1525. To the great detriment of the health and efficiency of the native?—Certainly.

1526. What steps are being taken to remedy that evil? Does your Department take any initiative in that work?—No; it is entirely a Government matter. We have no authority at all.

1527. Have you made any recommendations to the Government on the subject?—Various recommendations have been made by the industry from time to time, and the Government have tried to stop it, but they have not succeeded.

1528. And your deliberate opinion is that it is increasing?—I think at present it is. I do not think it is as bad as it was in the pre-war days, but it is certainly worse to-day than it has been.

1529. Is the difficulty of control very largely the result of a large number of traders establishing themselves along the Reef?—I would not like to say that the actual traders on the Rand are the means of supplying illicit drink to natives, but a large number of people who have no visible means of livelihood no doubt do live on this trade of supplying the drink. They act as agents for bigger people.

1530. Is there a considerable community here, then, which practically lives on this illicit drink traffic?—Yes, a large number of people. That is my opinion.

1531. Are they whites?—Yes, poor whites chiefly.

1532. Now, there are three systems of compounds, or, rather, three systems of housing the natives—the Kimberley closed compound system, the Johannesburg open compound, and the proposed native locations, in which the native would live with his family. What are your views on those three systems?—I think it is a very open question as to whether the gold mining industry could carry out the closed compound system as satisfactorily as the diamond mines at Kimberley. In the first place because the Kimberley boys engage for a very much shorter period than they do here. If they were confined in a closed compound some would be locked up for twelve months and many for six months. The average period, I think, for natives to work on diamond mines on the whole is not more than three or four months. That is the period that they are detained in the compounds. If we had to take boys only for three or four months we should lose greatly in efficiency, and we should want a larger number of natives to supply our demand than we do at present, because the native is not likely to work more than once a year. If he worked probably four months on a mine he would stay at home much longer than at present. Then when he came back he would work another four months. So, whereas we practically want two boys to-day to do twelve months' work, we should probably want three under that system. And another point is whether the older mines on the Central Rand have sufficient space to make arrangements for a closed compound, and whether there would be suitable ground. As regards the scheme of villages for the natives, I think where it is possible—for instance, on the Eastern and Western portions of the Reef—it would be very advisable to do it. I think it would encourage the natives to bring their womenfolk here, if the thing were conducted on proper lines. Respectable natives will not bring their women unless they are certain that only respectable women would be in those villages, but there is no reason why it should not be tried.

1533. You see no insuperable difficulty in organising that?—No. **(Mr. Taberer.)** Only in regard to the ground, of course. **(Mr. Villiers.)** The question is what form these villages would take—whether you would have housing accommodation plus agricultural land or small townships. If you had agricultural villages with allotments of land for ploughing and grazing you would want very considerable areas.

1534. Are those areas available?—Well, it is a difficult question to answer as to what proportion of natives would be married men with wives and families, and how much land would be wanted, but to do it on a large scale I think the native villages would be a long way from the mines.

1535. I suppose there is no difficulty in the gradual trying of the system?—I do not think so, on certain parts of the Reef.

1536. You suggest the outlying portions being tried first as being most suitable?—Yes, the East and West Rand.

1537. Coming back to the subject of the cost of recruiting—this 650,000*l.*—is there any means of saving that?—The reason for the high cost, especially among the British South African natives, has been due to this. Quite recently the various mining groups competed one against the other for labour. They had their various agents, who competed one with the other, and it is only in the last eighteen months that the Native Recruiting Corporation has come into being, which has amalgamated most of the various interests, and this has tended to bring down the cost of recruiting. As far as I am able to ascertain, the cost of recruiting to-day is very nearly 1*d.* per shift less than it was in the first six months of 1912.

1538. The figures being 5*d.* as against 6*d.*?—They were just under 7*d.* and now they are just under 6*d.*

1539. However, that figure still represents a large proportion of the native wages. It still represents something like 20 per cent. I am taking the amounts per shift, and the native gets about 2*s.*?—Yes. But I should like to point out about this 6*d.* per shift that it only applies to the recruited boy, because many boys come on their own and there is no payment. A large number are engaged in that way, and there is no expense. So I think that 3*d.* per shift is more accurate as regards the actual cost to the industry.

1540. Can you give figures showing the increase in the number of voluntary natives?—I have no particular statement, but from 1905 to 1912 the figures went up from 9,000 to 51,000. That is, purely voluntary boys. For the year 1913, owing to the industrial unrest here, our numbers fell to something like 34,000, but we cannot take last year—1913—as a criterion.

1541. Under normal circumstances you think the tendency is for the voluntary natives to increase?—Yes, largely.

1542. Do you consider that to be a better system than recruiting?—Much better. Our object is to do away with recruiting where we can.

1543. In regard to re-engagements, have you any tables showing the proportion of re-engagements. When boys come up for employment do you know how many are new and how many are old?—Yes, among the East Coast natives we know there are about 70 or 80 per cent. But we have no record of the British South African boys.

1544. Do you propose to publish such records?—No, we have not proposed to do so.

1545. Do you think there would be any advantage?—I do not think it is material. I think we can say that they are mostly old ones.

1546. You mix freely with the natives, I suppose. Would you say they are now satisfied with their treatment here?—I think they are, in the main.

1547. I suppose their treatment is much better than it was?—Yes.

1548. Is it very largely better?—Yes.

1549. In what particulars?—Feeding and housing, and the treatment of the native is far better than it used to be. It has been getting better for the last ten years or more, and everything is done for the native, or nearly all that possibly can be done for any labour force in the world. I do not think any other labour force is so well looked after as ours on the Witwatersrand.

1550. What do you say about rationing the native as compared with letting the native buy for himself?—I think that might be advisable in some cases. The rations supplied are of very good quality. They may be monotonous, although they are varied a good deal, and the native, in addition to what he gets inside, goes outside and buys a certain amount of food—more in the way of luxuries. In some ways I think it is better that he should be fed, because then you see that he is properly fed.

1551. Would a native, on the whole, prefer to be fed or to receive a payment in lieu of rations?—I think that depends greatly on the facilities given to the native to buy rations. The only natives who are allowed to feed themselves are those in the diamond mines in closed compounds. There it is very much easier to look after the natives than it is in the open

compounds. It is very essential, of course, that the native should be properly fed, but if he is allowed to wander outside and buy his own food you do not know whether he is properly fed or not.

1552. Is there any experience of natives not feeding themselves adequately?—I think a good many boys, if they had to feed themselves, would waste their money—in drink chiefly.

1553. So it comes down to this, that the real evil is the drink traffic?—It is one of the worst things we have to contend with.

1554. **(Mr. Campbell.)** Is there any restriction of the area over which the Native Recruiting Corporation works?—Yes. We are not allowed to go north of latitude 22 deg. south.

1555. Do you recruit only for the mines?—Yes.

1556. Do you recruit in Natal?—Yes, and in Zululand.

1557. Is there any restriction, so far as the Natal sugar-growers and tea planters are concerned, on their recruiting outside of Natal?—No. There are certain areas in Natal which are closed against recruiting for the mining industry. We do get natives from those areas, but they come voluntarily. They may come if they like, but we do not put recruiters in those districts.

1558. Has there been any discussion lately as to the restriction of the Natal sugar-growers and tea-planters with regard to recruiting outside?—No. There has been discussion, and it has been suggested that more areas in Natal and Zululand should be closed against the mining industry, but I have never heard it suggested that the Natal sugar-growers should not go outside for labour.

1559. There has been a suggestion that each Province should be closed as far as recruiting is concerned and restricted to its own natives, has there not?—I have never heard of that.

1560. The Witswatersrand Native Labour Association is purely a combination of the mines here for the purposes of recruiting?—Yes.

1561. Is it not a profit-making venture?—No.

1562. But yours is?—No.

1563. What is the reason for the existence of your Association? Is it a philanthropic body?—No. The Native Recruiting Corporation is an amalgamation of the various recruiting agencies of each group. Until about eighteen months ago every mining group used to compete with the other groups for British South African native labour. That system got so expensive that all the groups, barring one, agreed to combine for the recruiting of British South African labour.

1564. Then it simply consists of a number of recruiting agents who are carrying on their business as a Corporation?—The recruiting agents are simply the paid servants of the Corporation—paid by salary or by capitation fees.

1565. **(Mr. Lorimer.)** You say that the compound managers are licensed by the Government, but I suppose they are the servants of the mine owners, are they not?—Yes.

1566. They are responsible for the housing, feeding, and general well-being of the labourers—responsible to the mine owners?—Yes.

1567. Then what steps does the Government take to ensure that the conditions of its licences are observed?—The Government have inspectors who visit the compounds.

1568. You said you got Portuguese natives to contract for a year and you do not get any British South African natives for more than six months?—Some British South African natives do contract for twelve months, but the Portuguese natives are recruited in accordance with a Convention between the late Transvaal Government and the Portuguese Government.

1569. And what happens in the event of a native refusing to fulfil the conditions of his contract?—He would be taken before the Magistrate.

1570. What punishment is inflicted?—Fine or imprisonment.

1571. And is he sent back to work at the expiration of his sentence?—Yes.

1572. He is not allowed to go adrift?—No.

1573. **(Mr. Sinclair.)** Could you give us the age limits within which natives are employed?—From 18 to 45.

1574. **(Mr. Tatlow.)** Could you give the proportion of workmen recruited and those who volunteer their services, in respect of numbers?—It is about two recruited to one voluntary.

1575. In regard to a native location, would you favour the idea of a native township or the granting of land?—I think the granting of land would be better if it were possible.

1576. You spoke of it involving probably a long distance for the workman to reach his mine?—Yes. I say that if it is possible to give the land it would be likely to be some distance away.

1577. Do you think it is possible to provide sufficient land under such a scheme and keep the natives within a reasonable distance of the mine?—No, not with very large numbers.

1578. And in that case you would favour the township?—Yes.

1579. What would the native feeling be in regard to the township scheme?—The native would have to be educated up to it, like he has to be educated to work. He does not work by nature.

1580. A large number of the occupants of the native location would be single men, would they not?—They might be. But the idea is for a large number to be married.

1581. The workman, when he joins you, is free to fix the term for which he is to work?—Yes, he signs on for a certain time.

1582. What is the minimum term?—For recruited boys three months and for voluntary boys one month.

1583. It has been said that the native workman is inefficient because, to a great degree, he serves such a short period of service?—Yes.

1584. Is that period of service tending to lengthen at all as time goes on, or does it remain the same?—I think it remains pretty constant. I think the native likes to work for a few months and return to his home and family and belongings, and then come back again.

1585. Do they come back again year after year? If so, how many?—The native would probably work for a period of six to eight months in every fifteen or eighteen months.

1586. And for how many years will he come back, speaking generally?—Some have come back for the last twenty years.

1587. And the average would be what?—I should not like to commit myself to that.

1588. **(Sir Jan Langerman.)** What is the number of natives now employed on the mines?—About 178,000. It was 155,150 at the end of the year.

1589. And what is the shortage, according to the official complement?—About 100,000. The total is 250,000.

1590. Could the mines conveniently absorb another 150,000?—No, I do not think so.

1591. Another 100,000?—No, I do not think so. I do not think they would take them.

1592. What could they absorb?—About 50,000, I think.

1593. What is the cause of this shortage?—The industrial unrest—the strikes.

1594. Were the natives forbidden to come here?—They were told on all sides there was to be another strike at the end of the year, and a lot of boys took their passes and went. Thousands of boys who were time-expired went who would not have gone otherwise.

1595. You think there are natives to be had sufficient to make up the shortage, if they were induced to come out?—I think we could get a sufficient labour supply.

1596. If the unrest were removed?—I think they will come back gradually. They are coming back slowly.

1597. What is the reason the natives only stay so short a time? Is it disinclination for the work or because their families are away?—I think it is custom.

1598. The inducement to earn more money would possibly overcome the custom, would it?—I think if the native could advance in his sphere to more skilled

work he would probably stay longer. To-day he has nothing to induce him to remain.

1599. Suppose you increased his wages by 50 per cent., do you think he would stay longer?—I doubt that very much.

1600. You think the native is ambitious to rise and acquire skilled knowledge?—I am sure he is.

1601. So that if the colour bar were removed, you consider you would have more efficient labour and the natives would stay longer on the mines?—I think so. I think we could largely do away with recruiting.

1602. There would be an inducement to come and stay longer?—Yes.

1603. Have you made any representations to the Government to remove the colour bar?—When the colour bar was first inserted in the Mining Regulations the Chamber of Mines laid the matter before the Government and asked that the word "white" should be taken out for "competent labour."

1604. How long ago was that?—Four years ago, I think.

1605. If it is of such benefit to the mining industry that the colour bar should be removed, how is it that the agitation against this colour bar has not been continued or renewed?—I think the colour bar has been looked upon largely as a political question.

1606. Does the same colour bar, or the same disqualification or restriction, obtain in the Cape Colony, Free State, and Natal?—No. The colour bar, as far as I know, is confined entirely to the Transvaal.

1607. Therefore, you consider it is political?—Yes.

1608. Brought about by the Trades Unions, you think?—No; I think it is only to bolster up incompetent white men.

1609. **(Mr. Bowring.)** What reward is given to the voluntary boy here now?—None. The only advantage he gets is that he can choose the particular class of work which he does on the mine.

1610. He gets no money for coming on his own?—Nothing extra.

1611. **(Sir Alfred Bateman.)** In the Cape Colony, where the colour bar does not exist, are white and coloured workers working side by side?—Not in mines.

1612. Why not?—As far as I know, in the mines at Kimberley most of the natives are doing unskilled work under white supervisors.

1613. You mean they are not competent to do higher work?—They are not deemed competent.

1614. They are not prevented by law?—No. I think they are prevented by custom. I am informed that on some of the asbestos mines they have blasting certificates. Also, in the Cape Town Docks they work side by side, white and coloured, in lightering ships.

1615. In regard to the drink question, do you not think it would be possible to educate the native to drink properly? Could you not reform him?—I think he is very much like any other class in regard to reform.

1616. I was told by one of the Portuguese officials that light wine is given to the natives in Portuguese Territories. It has never been tried here, has it?—No. They are given Kaffir beer in the compounds.

1617. Of course, you are aware that in wine-drinking countries, speaking generally, there is practically no drunkenness?—I suppose it is less than in spirit-drinking countries.

1618. It has never been considered whether it would be possible to give light Cape wine to the native as an allowance?—I think it would soon be adulterated with spirit.

1619. You mean by these low whites?—I think so—very quickly. It would be a fresh cloak to the illicit liquor trade.

1620. **(Sir Jan Langerman.)** I should like you to give your confirmation or repudiation to certain evidence which we had from a certain witness. The following questions and answers were given†:—

"In what direction do you think they could get better work out of the native?—You will find the piecework system on the Rand is limited in the case of the native to a certain sum per day. . . . That is one direction in which that might be improved. There is an artificial limit of 2*s.* 3*d.*, I think it is, per day. . . .

"You say the native is limited in regard to earning capacity?—Yes, on the Rand.

"But is it not a fact that a native gets a certain amount if he puts in a 30-inch hole, and he can put in as many more inches as he likes and he gets ½*d.* or 1*d.* per inch more?—I think, if you make inquiries on that point, you will find that the practice varies on the different mines, and that on some mines—if the native drills beyond 36 inches, if he drilled 5 inches more—he would not get anything more for it. And there is another point in regard to lashing and tramming. The position of those natives is different. If the average boy's earnings on any mine exceed 2*s.* 3*d.* per day the mine is fined.

"By whom?—By the Transvaal Recruiting Association. They cannot give those boys more than an average of 2*s.* 3*d.*"

What is your answer to that?—There is a certain amount of truth in that. I would explain as regards the 2*s.* 3*d.* When the Corporation was formed it was resolved that all mines should pay the same rates of wages. That was to break down competition. But it was difficult to fix rates for the piecework system on different kinds of work. Some mines were doing machine work, drilling, tramming, and lashing on the piece-work system. For tramming and lashing the maximum average of 2*s.* 3*d.* was fixed. That was arrived at after going through the amounts paid for the whole Rand, and the 2*s.* 3*d.* was rather higher than the average. Certainly, in the case of certain mines the figure was somewhat higher, and the reduction possibly did discourage a few boys who had been in the habit of earning high rates. With reference to machines, it has now been found possible to fix a basis for piecework rates by which the earnings of the native are absolutely unlimited. On hammer work the natives have never been restricted. They can earn as much as they like at drilling, and so it is to-day. As regards tramming and lashing, we have altered the maximum average, and it depends on the number of boys employed. If 25 per cent. of the boys employed on tramming and lashing were on piecework the maximum average would be 2*s.* 9*d.* If 50 per cent. it is 2*s.* 7*d.*, I think, and so on; the reason for that being that among your tramming and lashing boys, if you put the whole lot up to 2*s.* 9*d.*, you would be paying boys perfectly uselessly for their work. We hope later on to fix some sort of scheme, to fix the price of tramming and lashing on the cost per ton, but owing to the differences on various mines, and considerable differences in different parts of the same mine, we have not been able to arrive at any satisfactory figure yet.

1621. **(Mr. Sinclair.)** In regard to fixing this maximum, can you tell us what percentage of the workers earn more than the maximum?—A very small percentage of the total labour force were engaged in tramming and lashing on piecework till recently, but to-day we are encouraging them as much as possible everywhere to go in for piecework. We think it will lead to increased efficiency.

1622. Can you tell us what proportion of those who are affected now by the maximum that has been fixed were earning more than that? Was it a small proportion or a considerable proportion?—A small proportion.

1623. **(Mr. Campbell.)** In the case of medical examinations, is there any large proportion of natives rejected on account of disease before leaving their homes?—About 5 or 6 per cent.

1624. And of those who are not rejected and who are examined by the medical officer attached to the Chamber of Mines, is there any large portion rejected?—Just under 2 per cent.—that is in the case of British South African natives. The rejections in regard to Portuguese natives by the Chamber of Mines medical officer are considerably less than that.

1625. Is it only in the case of infectious and contagious diseases that they are rejected?—No; they are rejected for being physically unfit.

1626. In regard to those who do not fulfil the term of their contract and who are brought before the

† See evidence of Mr. M. S. Evans, C.M.G., p. 24.

Magistrate, is there any large proportion of those who do not carry out their contract?—Very few. The number of desertions is very small. There used to be a great number in the olden days, but now it is very small.

1627. How, with the open compound, do you manage to control desertions?—The boys do not want to desert. And besides that, of course, there is the pass system to check them.

1628. **(Chairman.)** Then you look to the improvement of the native to proceed from greater opportunities for industry and skill on his part?—I think it will encourage them to increase their efficiency very much.

Mr. Hans Neuhaus, Mr. Edward John Way, M.Inst.C.E., M.Inst.M.E., &c., and Mr. William Gemmill, representing the Transvaal Chamber of Mines, called and examined.

1629. **(Chairman.)** Are there any statements showing the present position of the gold mining industry which you can put in for our information? — **(Mr. Neuhaus.)** I have not prepared any statement, but I can give you any information you may want.

1630. There is a statement which was presented to the Mining Industry Commission in 1908, shown on pages 255 and 258 of the report of that Commission. If that statement can be brought up to date it may be of value to us?—Some of these figures have been brought up to date, but perhaps I can give you some other information. Up to the end of last year the total tonnage crushed was 230,000,000. Those figures apply to the Rand alone, and the total gold produced was 382,585,000*l.* The total dividends paid amounted to 96,270,000*l.* During last year, *i.e.*, 1913, the total crushed was in round figures 25,559,000 tons, the value was 35,530,000*l.*, and the dividends paid £8,100,000.

1631. The total gold produced was 35,000,000*l.*?—Yes, roughly.

1632. Of which 8,000,000*l.* were paid in dividends?—Yes.

1633. Can you give us the utilisation of the balance—how much went to white labour, how much went to native labour, and how much went to stores and depreciation?—I can give you an approximation to that. The working costs accounted for 23,000,000*l.*, dividends for 8,000,000*l.*, and profits tax 1,000,000*l.*

1634. That brings it to 32,000,000*l.*?—The difference is accounted for by capital expenditure, depreciation, interest on debentures, carry forward and sundries. Of the working costs about 41 per cent. represented stores, 33 per cent. salaries and wages to whites, and 22 per cent. native wages, and 4 per cent. recruiting charges and pass fees, claim licences, &c. You may also be interested in the market value of the shares. These figures are for producing mines only—that is, those producing in February of this year. The total nominal value was 44,390,000*l.* At the end of February the market value was 70,000,000*l.* In addition to that there are debentures outstanding applying to those mines of about six and a half million pounds.

1635. Do you know what the value of the shares of the non-producing mines represents at the present time?—No, we have not been able to get any exact figure, but approximately five millions.

1636. The estimate given to the Economic Commission of the total remaining to be crushed in actual producing mines amounted to 587 million tons, did it not?—550 million tons.

1637. Which is rather more than twice what you have already crushed?—Yes, 230 million tons as compared with 550 million tons. I should explain, regarding this estimate, that it is based on the present working costs. If the working costs alter in a downward direction this tonnage would be increased.

1638. Can you say at all in what proportion the tonnage would be increased for a given figure of reduction?—No. Estimates have been attempted, but we have not been able to obtain anything reliable for ourselves at all.

1639–40. A witness this morning stated his view that as the costs have been reduced in the course of the last ten years by something like 6*s.* per ton a further reduction was probable in the future. Have you any definite views on this subject?—I have expressed my view that that would be likely. Probably Mr. Way would like to give his view from an engineering point of view. **(Mr. Way.)** The probability is that costs will be reduced by increasing the engineering facilities and by making better use of the labour than we are doing at the present time. You must understand me clearly in regard to that, because I consider we are making the best use we can of the labour on the present conditions, but we are debarred in certain ways from making the full use of it. The regulations lay down certain cases in which natives cannot be employed, and we think that in a great many of those instances, if this bar were removed, they could be much more profitably employed than whites are at the present time, so far as the industry is concerned, and that would tend to reduce working costs.

1641. Have you anything to add, Mr. Neuhaus, to the estimate of life furnished to the Economic Commission,* or have you any comments to make? — **(Mr. Neuhaus.)** The estimate furnished to the Economic Commission applies only to mines now crushing, and is made, as clearly indicated, on the basis of present costs. It follows that if costs are reduced in the manner just suggested by Mr. Way these mines will produce a greater tonnage than the 550,000,000 tons put forward in the statement to the Economic Commission. A reduction in costs would also make it easy to raise further capital and enable the other areas referred to in the Economic Commission's statement—namely, in the far East and South West Rand—to be more readily attacked. Hence, it is to be expected that new mines will come into existence which will more than counterbalance the decrease anticipated in the output of the present producing mines. My view of the position is that while conceivably we may have reached the approximate high-water mark of the industry from the point of view of production, and are now, as it were, standing on a plateau, we shall be able to remain on that plateau for a much longer period than indicated in the Economic Commission's statement, owing to the supply of more tonnage than estimated from existing mines and to the accession of new mines. Further, that the descent from the plateau may be much more gradual than the statement assumes it will be in respect of the mines now producing. It is well to point out again that the Economic Commission's statement, in so far as it gives figures, does not purport to give the life of the Rand, but deals only with existing mines under present conditions.

1642. Is it your experience that the life of the mines exceeds the figure calculated in advance?—My own experience is limited. As far as it goes, it goes to show that it does. I am Chairman of one Company, for instance, which should have been dead two or three years ago, but it is still producing at a profit.

1643. And that is not a solitary case?—Certainly not.

1644. What capital do you estimate is required for the development of these claims on the eastern section?—I do not know. **(Mr. Way.)** I think at least one million pounds per thousand claims. Taking it on the basis of 1,000 to 1,100 claims I think about one million sterling is necessary

1645. On that basis, if there are 86,000 claims, you would want 86 millions?—I think it would be very misleading if that went forth, because it cannot be conceived that the whole 86,000 would be entirely payable on our present knowledge.

1646. The number of payable claims would be reduced and with them the capital required?—No. Supposing you have a block of 1,000 claims, you would still require one million pounds to develop them. There may be only one-half or two-thirds really payable, but the money would have to be spent in getting

* See Appendix IV., p. 108.

your knowledge and putting up your plant, but it might be possible to segregate the areas from the knowledge that may be acquired later on into known areas in the eastern district which might not pay. They might be set off at once. I do not say it is probable, but it is possible.

1647. Mr. Neuhaus, with your present labour force, which, I think, is stated to be beneath your requirements, do you consider it is employed to the best advantage of the shareholders of the companies and the workers?—**(Mr. Neuhaus.)** Considering the obligations imposed on us by regulation, chiefly referring to the colour bar, the probability is that it is, but, of course, the important phrase there is "considering the obligations imposed on us," which obligations are really artificial.

1648. I think we will ask Mr. Way for details as to that later. You say that the colour bar is the principal reason why your labour cannot be utilised more economically. Are there any more reasons?—What do you refer to?

1649. Management and direction. Different views are taken as to the economics of amalgamation—greater or lesser economy?—I think that generalization on such a subject is very dangerous.

1650. Can you be more precise?—We have just had the engineer of one very important property concerned in an amalgamation that has recently taken place, who has read a paper showing conclusively, as far as the layman can see, that amalgamation in that instance has been extremely profitable.

1651. You would not go further than that?—No.

1652. We are speaking economically—not politically?—I am looking at the question from an economic point of view.

1653. Is there any reason why the advantageous results of past amalgamations should not be derived from future amalgamations?—No, I think not.

1654. Can you state at all what proportion of the mines now crushing are producing at an insignificant profit, say, less than two shillings?—I have a statement showing the segregation of the output last year as between dividend and non-dividend paying mines, and that shows that the dividend-paying mines accounted, as regards costs, for about 85 per cent. of the total—that is to say, that while the total costs were 23 millions approximately, the costs of the dividend-paying mines were 19½ millions, and 3½ millions were spent on mines which paid no dividends. They may have paid off some debentures, of course, I do not know. Regarding the other point. During December, out of 51 mines there were eight making a working profit of two shillings and less. The working profit is the profit declared and does not allow for profits tax, depreciation, and capital expenditure. Mr. Way points out that Statement No. 3 of the Economic Commission—the evidence led by the Chamber of Mines*—goes into this matter in great detail. That is page 85. On page 87 you will find a list of mines working at less than five shillings per ton profit.

1655. Now turning to another subject—what is the cause of the extreme instability of white labour?—It is a question which has been much discussed, and I think, on the whole, opinion is crystallizing to the effect that it is due to two causes principally—the inefficiency of a considerable proportion of white labour on these fields and to the hunt after the big cheque, which is a prize much sought after, naturally. The inefficiency of a certain proportion of this labour is, I think, undisputed by everybody acquainted with the conditions, and it naturally causes such inefficient people not to earn as much as they expect, and the mines being contiguous to each other, the temptation is great for them to go and try their luck on some other mine, hoping they may do better. Again, the managers, having a certain number of inefficient men and being always on the look-out for better men, make no great effort to stop this shifting.

1656. Do you think that real efficiency is possible under conditions of such instability and change?—Certainly it is a great bar.

1657. Has the Chamber of Mines any definite policy as to putting an end to this state of things?—We led evidence on this point before the Economic Commission.†

1658. Is the Chamber acting upon it?—No definite policy has yet been agreed upon.

1659. There is a state of affairs which everyone admits to be unsatisfactory to the progress of the industry?—We are asked to do away with the flat contract system, which I think has been in vogue on the fields here since they have been in existence. It is now suggested by a number of our technical advisers that we should abolish this system. This is an important decision to take and you will understand that it takes us some time to agree on a point like that.

1660. We may take it that the subject is one under active discussion?—Oh, very much.

1661. I need not ask you about contract work for natives?—We are in favour of the piecework system, and have extended it very much. One very important branch which has always been piecework is that of hammer boys. We have extended it now to machine work, and are extending it to tramming and shovelling.

1662. Do you agree with the evidence given this morning that one requirement to increase the efficiency of the native is to enlarge his scope. I do not mean the class of work he does, but to enlarge his chances of getting a larger day's pay?—If you mean that it is necessary to add the element of ambition, I think it would help immensely.

1663. Not only towards his efficiency, but his development also?—Certainly.

1664. Now, in regard to white labour. Is the present system, under which white labour is engaged by each individual mine, superior to having a Central Labour Bureau?—In that question, again, is involved the work for which the white labour is used. It is used here almost universally in a supervisory capacity. It depends not only on the skill of the man but on his character; therefore, it is necessary for the individual man to come into contact with the man who engages him, so that he can see for himself whether he is the kind of man to be put in control of other labour.

1665. Judged by the eye?—And by discussion with the man.

1666. It does not seem to lead to a very good selection?—That is due to the fact that we have not got a very good quality to select from. But we have not taken up a final or definite attitude on the subject of a Central Bureau.

1667. Has it worked at all up to now?—**(Mr. Way.)** I quite agree with Mr. Neuhaus. You must make the manager responsible for the work that takes place on the mine. He must be directly responsible for taking on his men. If you have a Central Bureau they send out so many men of different classes for employment and the mine has to take them on because they have been engaged by the Bureau. But they do not look to the manager—they look to the Bureau, and then when they are dismissed for incapacity they have a grievance against the manager, and not against the people who took them on. It should be the same both ways. The Central Bureau system might be all right if you were employing 20,000 navvies to build a railway, because you are employing one particular class of workmen; but because these mines are contiguous to each other it does not necessarily follow that they are similar as to working conditions. Men who are successful on the Eastern Districts of the Rand are not necessarily successful on the Western Districts, and *vice versa*.

1668. About the compound system: there are practically three kinds of housing for natives—the closed compound, the open compound, and the location. Has the Chamber of Mines any definite policy on that subject?—**(Mr. Neuhaus.)** We gave evidence on this question some months ago to the Black Peril Commission, and then we said that "as regards the compounding of mine natives the Chamber is satisfied with the present system. The closed compound system would introduce a great innovation, and it is for the Commission to decide whether it is in the interests of the community and whether circumstances warrant such a change." The Commission recommended the closed compound in regard to the gold mines. I have

* "Transvaal Chamber of Mines. Statements presented to the Economic Commission." Johannesburg. 1913.

† See Appendix V., p. 109.

the report of that Commission here (*handed in*).* The Chamber has not discussed the matter in detail, largely because it is felt that, in view of the tremendous amount of interests which have grown up in the last twenty-seven years, it is inadvisable and impracticable perhaps to adopt a system which is in force at Kimberley and the Premier Mine.

1669. Let us go a little more closely into that. You say even if these reforms were desirable vested interests would make it impossible?—I did not say that, quite. But it seemed to the Chamber impracticable at the moment to go further.

1670. Assuming that such reform is desirable, what are the difficulties opposed to it?—Probably the chief is the interests of traders along the reef, who depend largely on the free ingress and egress of the kaffirs for their trade. We supply the natives with their ordinary food, but everything else he buys at the stores.

1671. Are those traders licensed by Government or not?—**(Mr. Gemmill.)** The answer is, I think, that, generally speaking, some are granted sites by Government on mining ground, but there are also private stores not on mining ground which do not require the Government grant of a site.

1672. Why are some licensed and some not?—As far as I know it is a store on mining property that requires to be specially permitted.

1673. And is that licence (permit) renewable from year to year?—I am afraid I cannot give you the information off-hand. **(Mr. Neuhaus.)** I think the stands are put up by auction and sold at a certain annual rental.

1674. He competes for the right of trading in a certain area or district?—On these mining areas there are a certain number of stores and they are limited now. Previously, I believe the basis was that the mines thought they had the right to grant trading stands on mining property, but this was ultimately found to be not correct and the Government took control of the matter. There is a comparatively large revenue received by the Government from these.

1675. That means it is a Government monopoly which the Government sublets?—Yes, to some extent.

1676. Does that rental received by the mines convey any guarantee against disturbance?—I cannot tell you. I suppose it must do so, because otherwise the people would not pay these large sums for the rights. I think the best procedure is for us to submit a written statement to you on the subject.†

1677. The position, I understand, is this, that a certain reform is proposed, and the statement is made in reply that, whether good or bad, it is impossible?—I never said it was impossible.

1678. Well, impracticable. I want to see what the real ground of impracticability is?—Of course, there are other difficulties involved, for instance, that the natives come up here for periods which vary from one month, in the case of the voluntary native, to twelve months in the case of Portuguese natives, and, in very many cases, they stay much longer. At Kimberley the natives contract for shorter periods, and are, I believe, not allowed to renew, so that the closed compound system only means they are deprived of their liberty for a short period, while here the period would be much longer.

1679. We were informed by two witnesses this morning that this illicit liquor dealing is a growing evil: is that your view?—It is certainly a great evil. I am not in a position to say whether it is growing. There is a special department of the police which deals with that and which would give you evidence on the point.

1680. They are responsible for its not growing, are they not?—I do not think they would hesitate to give you figures as to convictions. **(Mr. Gemmill.)** I have figures to show the number of shifts lost through drink. In December, 1911, 2·2 shifts were lost per month per hundred employed; in December, 1912, the figure was exactly the same, and in December, 1913, it was 1·9. The figure appears, therefore, to have been fairly steady throughout those periods.

1681. I presume there can be a good deal of illicit liquor without loss of shifts?—**(Mr. Neuhaus.)** In connection with the illicit liquor question, it may be worth noting that there are two forms of it. The first is the sale of the liquor by whites to these natives illicitly, and the second is the manufacture of the liquor by the natives themselves out of ingredients perfectly innocent in themselves, such as golden syrup, which they obtain from the storekeepers. I am inclined to think the latter is the greater danger. Of course, if caught, they are punished, but that is a form of the business in which whites are comparatively innocently employed. They only sell the golden syrup to the natives.

1682. Can you give us any views as to the present system of recruiting natives?—I think, under the circumstances that prevail, the present is the only one we can adopt.

1683. Do you consider the cost heavy?—As a rule it is heavy. I think in due course we shall be able to reduce it; and perhaps the removal of the colour bar, if that could come about, would open up higher spheres of employment for the native and induce still more voluntary natives to come forward and thus make it less necessary to recruit. That may result.

1684. The view has been put forward that, if the money now spent on recruiting, namely, 650,000*l*., was added to native wages, the results would be better?—I personally doubt it. It might improve slightly. But you must remember that a large proportion of that sum is spent on the East coast, where the system of recruiting is entirely different from that in the Union of South Africa. The East coast system is practically only a forwarding agency. The expenses are in regard to payment of runners and travelling expenses of natives. On the other hand, the expenses in the Union of South Africa are of a different class, in that a certain number of white people are actually paid a reward for getting the natives out. As long as we get natives from the East coast, I doubt if that portion of the expenditure can be reduced very much, and, as regards the natives from the Union, if we stopped the capitation fees to recruiters we might have to pay the rail fares of the voluntary boys and have other expenditure. After all, the whole figure is less than fourpence a shift, I think.

1685. It was said it was threepence a shift taken over the whole number. If applied to those whom it affects it is just under sixpence?—The boys recruited by the Native Recruiting Corporation cost about sixpence, those of the Witwatersrand Native Labour Association about 3½*d*., and the balance nothing. The whole average is a little under fourpence, I think.

1686. Have you any figures or information as to the prospects of life for a white miner entering employment on the mines here?—**(Mr. Way.)** That is rather a difficult question to answer. One has heard much about the average life of the miner in the past, but, I think, now that the miner's phthisis regulations are being carried out, the miner has as good a chance here as in any other mining camp in the world and probably better—I mean in metalliferous mines.

1687. Are any figures available showing the benefit derived from the phthisis regulations?—**(Mr. Neuhaus.)** There are no figures, but the information lately from one end of the Rand to another shows that the condition of the mines to-day is totally different from a few years ago, so much so that people who are entitled to speak from personal experience tell me that the chances of getting phthisis to-day for a man coming to the work are reduced to such an extent as to be almost negligible. **(Mr. Way.)** I confirm that.

1688. Do you consider that the uncertainty of life in the past for the white miner has been one of the causes of the instability of labour?—I could not say at all. **(Mr. Neuhaus.)** There is a long statement on the phthisis question in the "Statement presented to the Economic Commission," in which we dealt with this matter with considerable detail and which still holds good—page 68. That deals with the history of the phthisis question here.

1689. We will take the reference. What is your white labour supply? Is there difficulty in finding an adequate supply of white labour or not?—**(Mr. Way.)** Yes, the supply is not equal to the demand—that is to say, of efficient men who understand their business. I should like to point out in regard to this phthisis

* Report of the Commission appointed to enquire into Assaults on Women, U. G. 39, 1913.

† See Appendix XL., p. 114.

question, in going into this question for the Economic Commission, we found that in other countries no enquiries of any importance had ever been held as to the percentage of the men in mines who suffered from this disease, no enquiries of anything like the extent of the investigation which had taken place here. No comparative figures were available. In other countries Governments have refused to subscribe to the cost of enquiries. In the United States, for instance, they would not even allow private enquirers to find out what influence the existence of phthisis had on the supply of miners in the States. We have a bad name because we publish the true state of affairs.

1690. You think the extra bad name is not deserved?—I think the disease has been bad, but I think it may be equally bad in the United States and Australia.

1691. Can you state the proportion between machine drilling and hand drilling, and what the tendency of those proportions is?—In December, 1913, the proportion of machine boy shifts to hammer boy shifts was as three to seven—three machines to seven hammers.

1692. Does that indicate a further large field for economy of labour upon the further introduction of machines?—The introduction of machines depends a good deal more upon other things than economy of native labour. It depends on the physical characteristics of the mine. There are mines where it would be uneconomical to use machines haphazard and wholesale, because the machine breaks a greater width in the stope and brings down more waste rock, which cannot be eliminated, as it can from a stope run by hand labour.

1693. Does that apply to large and small?—More large than small, but to small more than to hand labour.

1694. What is the economy of labour produced by the substitution of machines for hand drilling—take 100 tons. You want how many boys for hammers, and if you use machines how many do you want?—The rough average of the amount broken by a hammer boy on a shift is in the neighbourhood of about 0·8 of a ton.

1695. Now the number of tons broken by machine? You say there are two boys on a machine. The object of my question is this: You suffer chronically at the present time from a shortage of native labour; one of the means of meeting it would be to employ more machines and fewer hammer boys?—Yes.

1696. How far would economy in that direction be possible?—As I pointed out, the physical conditions also enter largely into the matter. It might be that a mine which was struggling along on a hand stoping basis might make a loss if it took out its hand labour and put in machines.

1697. But on such mines where machine drilling is possible, what is the economy of natives which you would achieve thereby?—I am not quite certain of the figure now—what amount of tonnage is broken per machine. It varies, of course. We pay on rock drill work on stoping on the basis of a square fathom. I am uncertain about the number of tons that are broken with a big machine.*

1698. Mr. Ross Brown, in his report of June, 1907,† says: "Where the engineer has failed to produce results has been in the handling of labour." Is this still true, and is the present labour inefficient?—The present native labour is infinitely more efficient than at the time Mr. Ross Brown made his report.

1699. And white labour?—That has gone off.

1700. I think you were going to make a statement regarding the colour bar; what is your view in regard to that?—It is mostly set out in this statement which we made before the Economic Commission recently, pointing out exactly where the Government prevents us from employing natives in various capacities. (Page 178 of the Chamber of Mines' Statement to the Economic Commission.) The banksman must be a white man; we can get many competent natives to do that work. The ganger must be a white man; it is quite possible for certain natives to do certain duties now performed by the ganger. The white man could be put on a higher supervisory basis, and let the duties which he does as ganger to-day devolve on a trained native. The onsetter must be a white man, but an intelligent native is just as good. Of course, the rate of pay which we would give, although more than the average, would be less than the wage we pay the white man. In fiery mines all lamps must be inspected by a white person. We think there are many natives just as competent to do that. I may say here that in handing in this statement I was asked a direct question by the Chairman as to whether I was in favour of a native being a mine manager. I replied that if he was competent I saw no reason why he should not be. So that we do not want to make any class distinctions in regard to this matter. We want equal liberty. We want equal opportunity between the native and the white man. At the present time the tendency of the law is to bar a native from doing work which he is as competent to do as a white man.

1701. And you think the removal of that bar is the best step towards increasing native efficiency?—Yes.

1702. One other question: the statement of the Chamber of Mines to the Economic Commission limits the payable working of the mines to 7,500 feet?—Yes, vertical depth.

1703. Have you any views as to whether it is adequate or excessive?—I remember the time when 2,000 feet was considered the limit here, but as we got on with the work, and as other mines in other parts of the world got deeper, we thought we could go deeper too. The reason why 7,500 feet is stated in the report is that at the time the Chamber of Mines were making investigations into the question, I put a question to the Government Mining Engineer as to what he considered would be his view, and he said he was not prepared to recommend to the Minister the proclamation of any gold bearing areas where the lodes would lie at a depth greater than 7,500 feet. That is why we adopted that figure. As we get to work we shall probably get down much deeper.

1704. But I presume the depth to which you can go depends in a very great measure on the richness of the ores you find there?—That is, of course, one of the greatest points. I think it will be a continuation of the outcrop workings or sub-outcrop workings or deep level workings in the deeper levels rather than sinking a 7,500 shaft from the surface.

1705. As far as regards the increase of heat—have you established a definite law?—There is diversity of opinion. Some very careful experiments have been prepared, and there are shafts over 4,000 feet deep where temperatures have been taken, but engineers are not yet agreed as to what the variation is per hundred feet of vertical depth.

1706. Within what limits do they differ?—I cannot say; it is generally admitted that temperature rises 1° F. for every 245 feet vertical in depth.

1707. **(Mr. Lorimer.)** What is the greatest depth at which any mine is being worked on the Rand at present?—About 5,000 feet.

1708. And if that mine went down to 7,000 feet, and it could still be worked at a profit, would it under the present regulations require to be stopped?—No.

1709. Then what is the difference in temperature as you go down—say taking 1,000 feet?—The figures are not yet quite settled—there is some diversity of opinion on the point.

1710. What is the temperature at 1,000 feet?—About 70 degrees.

1711. Is it pretty uniform?—Yes.

1712. What temperature would you have at 5,000 feet?—The determinations were one degree for 240 feet, but recently some doubt has been cast on those figures by other engineers, and the figures are not quite correct.*

1713. I am asking this question with a view to the consideration of how it will affect working costs.

* The Chamber of Mines subsequently stated (in a letter dated April 18, 1914) that one native shift with a large machine breaks rather more than four times the tonnage broken by one native shift with a hand hammer.

† "Working Costs of the Mines of the Witwatersrand." Paper read at the General Meeting of the South African Association of Engineers.

* See Appendix X., p. 113.

Naturally, when you get into a high temperature you cannot get the same amount of work?—We have overcome that difficulty by a system of ventilation which is already widely adopted.

1714. Does it reduce the temperature?—It does.

1715. Then if that difficulty were overcome at great depths, the only additional costs would be for longer haulage and the longer distance to raise the ore?—Yes.

1716. I gather from you that it is a matter of extreme importance to future developments that working costs should be reduced?—**(Mr. Neuhaus.)** Yes

1717. Have you any idea of how that could be done?—By the better use of native labour—the abolition of the colour bar regulations.

1718. Your labour amounts to about 32 per cent. of the total working costs?—33 per cent. That is white labour only. Coloured labour, 22 per cent.

1719. What are your stores?—41 per cent.

1720. Is there room for reduction there?—New economies may reduce it, and, of course, if railway rates are reduced and prices, it will cheapen stores. But I do not think there is any waste at present.

1721. What proportion of those stores is chemicals?—Cyanide accounts for about 5 or 6 per cent. of our store bill. That is our largest item in chemicals.

1722. You say you have to provide a sinking fund to redeem certain capital expenditure out of your profits every year?—No, we must allow for the redemption of capital expenditure before we calculate what interest we are really earning. The position is set out in the statement to the Economic Commission.*

1723. I gather from this that before you declare your profits you set aside a certain sum for amortization?—No, it is in arriving at what our real profits are.

1724. Then it is merely a figure in your head?—Yes.

1725. It has not to be set aside and invested in any way?—No, but the Government allows us to amortize our capital expenditure before paying our profits tax.

1726. Does all the capital in these mines represent cash paid up? Suppose there are 150 millions of capital invested in mines on the Rand, does that represent 150 million sovereigns paid out of somebody's pockets?—I do not quite appreciate the point.

1727. Some of the original prospectors took shares in payment?—Yes, distinctly.

1728. Do you know how much cash has actually been paid?—71 millions is the figure. That is of the producing mines, and it excludes the cost of the property itself.

1729. Now, you say that the profits tax amounts to one million a year?—Yes, in round figures.

1730. On what profits?—On the profits made by the mines, after deducting working costs and an allowance for amortization of capital actually put into the mines.

1731. I want to know what proportion of the profits is paid to Government. You say it is one million? What percentage?—Ten per cent.

1732. Well, you get off easily compared with the Premier Mine?—That is a totally different proposition. The Government are part owners of that.

1733. Does the ore get harder to work as you go down—the hardness of the rock, I mean?—No, I do not think so.

1734. So it is the increased cost of raising the ore, then, that you would have to face at greater depth?—Yes.

* This shows that the cost of production is taken to consist of the following items:—

(a) Working Costs.

(b) Other operating costs, not already included in (a), such as Miners' Phthisis Contributions, Donations, Bonuses, etc.

(c) The annual amortisation allowance to redeem the working capital expenditure of each mine during the estimated producing lifetime of the particular mine.

This allowance to be calculated at the rate adopted by the Government under the Mining Taxation Act, namely, 3 per cent. compound interest.

(d) A similar amortisation allowance to redeem the price paid for property.

From the margin between revenue and cost of production is then deducted profits tax, and the result is the net margin available for remunerating capital.

1735. **(Mr. Sinclair.)** I take it that the Chamber of Mines is a body that represents broadly the mines of the District?—It represents practically all the gold mines of the district. The Premier is also a member, also certain outside gold mines—the important ones—and also many coal mines. I think it represents what its name represents—the Transvaal mining industry.

1736. You are an entity representing the industry; are you able to get into touch with an entity that represents the white worker?—The trades unions? No, the Chamber of Mines, as such, has always adopted the attitude of leaving that to the individual mines.

1737. There is no body between your body and the workers?—No.

1738. And there is no touch between you and the coloured worker?—No, they are not united. In connection with the white artisans possibly a partial exception is an arrangement made some years ago between the Transvaal Chamber of Mines and the Union dealing with engine drivers. That is the only exception.

1739. The individual mine gets into touch with the trades unions so far as the white worker is concerned; as regards the coloured worker I understand there is no organization in existence which represents him?—Yes, the Director of Native Affairs and his inspectors. The Government puts itself into the position of protector to the natives. They have direct protection, and through our organization, the Native Recruiting Corporation, we pay attention to the wishes of the native labourers. They have easy access through that organization for the hearing of any complaints. There is a compound manager who is directly responsible for the well-being of the natives, and complaints are made to him, and I think I may say they are immediately investigated.

1740. Do I understand you to say that you favour piecework?—Yes, as the system of employment of the coloured workman.

1741. The effect of the application of the piecework system to the coloured worker would be, from the mining point of view, a reduction of cost?—Yes, per unit of work done.

1742. Can you tell the Commission what, in your opinion, would be the particular effect of the adoption of that system upon the coloured worker; would he benefit or otherwise?—I feel sure he would benefit by the higher wages, and I think he would work more regularly. It can only be to his benefit, I think.

1743. Would the representatives of the coloured worker, to whom you referred, in case of need protect him from the effects of—I do not like to use the word "sweating"—but the increased exertion that he would have to put forth if the contract system were adopted?—The system has been in force for some time.

1744. I am speaking of the coloured worker?—Yes. It has been adopted for hammer work for many years. I have no doubt whatever, from experience, that if there was anything like driving the native too fast, we should soon hear all about it. Mr. Pritchard is a most energetic official, and looks after the natives very well; so does his staff, which visits the mines continually.

1745. I wanted to speak about the position of the stores that look to the native as their customer. They pay certain sums to the Government for the privilege of occupying the positions they have?—Some do—it is a single payment in other cases.

1746. It does not give the right for all time?—There is an annual rental—a small one. But I prefer to leave that question of the exact terms over and let you have a statement,* because none of us are exactly informed as to the details.

1747. I should like to ask if there is a fear on the part of those who keep these stores that there may be competition against them. Are they afraid of the mines entering into competition?—We have never discussed it with them, so I do not know.

1748. Do you think it would broadly be in the interests of the worker if the mines themselves had stores and sold without attempting to undersell the present storekeepers?—Are you talking of food?

* See statement by Mr. Schumacher, Appendix XI., p. 114.

1749. Yes. Everything that they require and purchase from these stores?—Unless we adopt General Gorgas's recommendations and allow them to buy their own food, I see no great reason for establishing stores.

1750. But it was put to you by the Chairman that the carrying on of the business of these stores under existing conditions really amounted to a monopoly. Have you considered that monopoly? If you consider it objectionable, would not you have a remedy in opening stores yourselves without attempting to undersell the storekeeper?—No, we are not allowed to. I can give you chapter and verse.

1751. Is it a statutory provision?—Yes.

1752. As regards liquor, it is the case in some other parts of the world, is it not, where there are mines, that the efficiency of the worker is reduced in the early days of the week owing to indulgence in liquor? —I am afraid I have no experience elsewhere.

1753. Have you no knowledge of the conditions that obtain in some of the coal-mining districts in the Mother Country, for instance, in regard to the slackness of the worker during the early days of the week? —I have been told there is such slackness.

1754. And within certain limits you must look for it, must you not—the same condition?—Yes, but our objection at present is not so much because we lose a shift or two. If that were all, I do not think there would be much objection.

1755. The evil is a very real one everywhere?—Yes; but, as far as South Africa is concerned, it is not only mining districts which are in question, I think it is practically the law all over South Africa that liquor must not be sold to kaffirs because it makes them into dangerous individuals. It has nothing to do with mining.

1756. You gave the number of shifts lost per month by indulgence in liquor, and it was to that point I was directing attention. As regards the cost of recruiting—that will be lessened, will it not, as competition ceases or lessens between the different mines, brought about by amalgamation for the purpose of recruiting?—It should do so.

1757. (To **Mr. Way.**) I wanted to ask whether, broadly speaking, you regarded the coloured worker in the mines as economical?—**(Mr. Way.)** Yes, as compared with white labour. It is certainly impossible for the white man to do the same work for the same money.

1758. So far as the actual work is concerned in the mines, it must be carried out by coloured labour? —Yes.

1759. So that even if you had any large numbers of white workers available they could not do the work as economically as the coloured worker?—Certainly not.

1760. For all time, the coloured worker has captured the mines?—Yes. It is the cost of living. That is all dealt with very closely in this statement to the Economic Commission that has been referred to.

1761. Arising out of that answer, within what limits do you suggest that the efficiency of the coloured labourer is confined? Is he to be the manual worker in the mines for the future? How far can he go? Of what is he capable?—Any distance if you give him time, as a manual worker.

1762. On page 178 of the statement to the Economic Commission there are certain directions in which it is suggested that he could with advantage and safety be employed, in which he is not employed at present, owing to legislation. Are there other directions in which he could be employed, as the result of discipline and training that he gets as a manual worker?—You mean, if we did away with all custom and sentiment?

1763. I want to try to find out how far he can go? —He could act as a blacksmith, fitter, carpenter. There are coloured people in the Cape who do exactly the same trades as white people.

1764. There is no legislation, is there, to prevent the employment of the coloured worker in those capacities to-day?—No legislation that I know of except that we have mentioned. It is custom.

1765. Is this custom insuperable? If these workers are capable of being profitably employed, both by the company and themselves in the occupations you have named, why is it that up to now so few of them are so employed?—On account of custom and sentiment. It is nothing but prejudice. In outside districts where we have not this prejudice you will see native blacksmiths and carpenters at work—in Rhodesia, all over.

1766. Where a company that is up-to-date and well managed, as we know these companies are, if I may be allowed to say so, recognizes that it is mere prejudice that forbids the utilization of these men in these occupations, is there no one prepared to lead the way? —And have the results of another July and January strike (1913-14)?

1767. That is the alternative?—As far as I know.

1768. That is the barrier that holds the employer back?—That is about it.

1769. **(Mr. Tatlow.)** In regard to the shortage of white labour, do the sons of white miners follow their fathers' employment?—I am afraid they are not keen to follow the employment of miners. Wherever we can, we give the sons of our workpeople the first chance of employment as apprentices, but very few adopt the profession of their fathers, as far as mining is concerned. They generally put them in the carpenters' shop or the fitters' shop or to surface work.

1770. One would have thought that it would be the natural thing for the son to follow the father's employment—but, perhaps, there are reasons that tell against it. Is it that they do not like manual labour?—Underground there is not much manual labour. I think it is the scare of miners' phthisis.

1771. You think you could take more boys as apprentices than you do?—Yes, we could take more. We have some learners now. They are not necessarily the sons of employees, but young men who come from other districts.

1772. In regard to that question of amalgamation, in addition to the advantage of saving the expense of recruiting, would it not have the further advantage of diminishing the tendency of the white workman to remove from one point to another?—Yes. But the amalgamation referred to previously was that of the recruiting organizations—not of the mining companies.

1773. I think you said you had in your mind many disadvantages which would result from amalgamation of the companies. But you did not say what they were. You said there were certain objections to the amalgamation of the mines?—**(Mr. Neuhaus.)** No, I think not. I think the question was whether amalgamations had been successful, and I think they have been.

1774. In regard to those mines that are not paying dividends, do they pay interest on the debentures and depreciation, and so on?—Well, the figures are that last year the non-dividend paying mines produced the following results. Their tonnage crushed was 6,300,000 and the output 4,075,000*l*., with a working profit of 529,000*l*., which would either go into the mine in the form of development and capital expenditure or be carried forward. And if they had debentures they would pay interest on them. You must remember, in regard to those mines, that it does not follow that because they only earned that small profit one year that next year they might not have done better. I have in mind one mine which was in low water three years ago and has now turned out an extremely promising proposition. I have figures for 1911 which show a worse picture than this. They show that 30 per cent. of the total costs were on mines not paying dividends, and now it is only 15 per cent.

1775. **(Sir Jan Langerman.)** I want to refer to the question of stores on the mines. I want you to make it quite clear what they signify. You know before the war, under the Gold Law every digger had the right to peg off a stand on his claim?—Yes.

1776. Now, those stands are still in existence, and most of them have stores on to-day. They are not included in the concession stores. Then, also, the mines had the right at one time—or thought they had the right—to let out pieces of ground for the purpose of trading. The mines had it in their own hands because they thought they had the surface rights. Then a judgment was given against the mines where the surface rights were held not to be in the hands of the mines but in the hands of the Government. Then the Government had to cancel all their stores on

the different mines which had been given out and take control of them, because the Government possessed the surface rights. Is that not so?—I cannot confirm it because I do not know the history.

1777. Well, that is the history of the origin of those stores. It is as though the Government had the monopoly, but is it not a fact that if any one can show that the population in any mining area has increased to a certain extent any citizen can go to the Government and say there is room for another store, and the Mining Inspector can visit the place, and if he is satisfied there is room they can allow another store to be opened?—He first of all goes to the mine and asks if they have any objection.

1778. Yes; but the existing storekeeper has no monopoly?—Not necessarily.

1779. He always has the chance of another store being put there?—Yes; but I do not know whether the mine has the right of veto. It has certainly the right of being heard.

1780. So there is no monopoly on the part of the Government?—There is a monopoly to this extent, that it is not open for everybody to open a store.

1781. And then also, according to the law, no miner or any official on any mine can start trading on a mine?—That is so.

1782. So the mines have no interest whatever in carrying on trading on the mines?—That is correct.

1783. Now, we heard about the instability of white labour. Have you any figures to show how many miners, or how many workmen, are thoroughly experienced on the mines and how many are not?—No; we have no figures.

1784. I want to find what is the percentage of inexperienced men to experienced men that move about from mine to mine?—With reference to your question, I would refer you to page 125 of the statements given to the Economic Commission, where we show the number of white men engaged and discharged in December last, and we segregate them into different classes. We show the total number engaged was 1,984, the total dismissed 988, and left of their own accord 891, and the average number working during the month was 21,064. So the percentage of those discharged to the number working was 8·92 per cent. Splitting it up between underground and surface men, there were 13·77 per cent. underground, and 3·88 per cent. surface.

1785. Mr. Way will be able to tell us whether the migration goes on among inexperienced men or among efficient men?—**(Mr. Way.)** I can only answer by giving a short general statement on the whole position as it appears to me. I believe that the changes which take place on the mines, among the underground men particularly, are, as Mr. Neuhaus has said, due to the running after the big cheque, and the big cheque is a consequence of the flat contract system. In my opinion, the big cheque will also be a consequence of day's pay plus bonus system. The position is that, owing to the scarcity of white miners here, we have to take on practically anybody who offers himself for that class of work, but we protect ourselves, in the first instance, by taking on as many as possible as learners, and, as you know, there is the Wolhuter School, where these men are trained officially. But men are taken on as learners who have not been to the school and go into the mine, and all they know is the shaft they go down and the crosscut and drive they go along to get to the working place or the stope where they have to work. In six months this man, who has never been down a mine before, considers he has learned his business. He has been given a machine and taught how to use it by a more experienced miner, and he is getting about 6*s.* or 7*s.* a day to begin with. At the end of six months he may be earning 8*s.*, 9*s.*, or 10*s.* a day. But he sees in the next stope or down the drive where he is working there is an experienced man on contract work who is earning 2*l.* a day and perhaps more, so he goes to his immediate boss and says, "I am just as good a man as so-and-so and I want a contract." Now, there are two courses open to his boss, either to give him a contract or to tell him he cannot have one and he must go on day's pay, and allow him a little more a day. If he does not get the contract, he packs up and goes off to an adjacent mine. He has his discharge ticket, showing that he has worked for such and such a time on a certain mine, and as he has a certain amount of experience and wants a contract he gets it, and on the flat contract system he comes out at a loss probably. As a rule, the miners never pay losses, but in some cases the loss is made up and they get something to boot. The miner finds he has not made a big cheque. He blames the manager, he blames his boys, he blames his drills, he blames the machines, he blames the compressed air, he blames the surveyor for measuring him up wrongly—in fact, he blames everybody but himself, and out he goes to another mine. Now there is a large number of these gentlemen wandering up and down the 60 miles of these fields, and they are increasing rather than decreasing, because the conditions here are such that a man will not take the trouble to learn his business. He thinks he can learn in six months what it takes the average man in other countries three or four years to acquire. I do not know what is the cause that he imagines he can learn it so quickly. Well, we are at the mercy of these men, because we have not enough efficient men to take their places.

1786. What do you think the percentage underground of efficient men is to the total employed?—Very much less than twenty years ago. The same question was put to me by the Economic Commission, and I had to reply by giving my personal experience. In a mine where one has been accustomed to go down—as I have for eighteen years—in the old days when I went down that particular mine there might perhaps be five or six men out of 200 whom I would have liked to dismiss or have "told off." Well, going down that same mine to-day I should like to sack half of them. Now, that is the only way I can give it to you; statistics will not help you.

1787. Now you referred, Mr. Neuhaus, to the number of shifts lost through drink on the part of natives. Can you give us the number of shifts lost through drink on the part of white men?—No, I am afraid not.

1788. You said you only kept figures for natives and not for whites. Of course, you know drunkenness is rife among the large proportion of the white miners?—**(Mr. Gemmill.)** The reason we keep such figures for natives is because the Government requested it, with a view to ascertaining whether the illicit liquor traffic is increasing. That information is furnished to the Government each month.

1789. I think it would be instructive if you kept statistics of the number of shifts lost by white people. Now the mines do not provide a sinking fund in cash to be set aside against the closing of the mine eventually?—**(Mr. Neuhaus.)** No.

1790. Everything is distributed in profits?—They may not distribute it all. They may keep a reserve to carry forward.

1791. But is that customary?—I think nearly all mines have a carry forward.

1792. Yes, but the book balance does not represent cash in hand?—In many cases it does. I got out figures three years ago, and I found a very large proportion was there in cash.

1793. What does your miners' phthisis contribution amount to per ton?—**(Mr. Gemmill.)** The actual cash contribution is between 4*d.* and 5*d.*

1794. That is a large item in your working costs?—Yes.

1795. I should like to have your opinion about amalgamations, Mr. Neuhaus. It has been said before that the amalgamation of certain groups in the past has not been very satisfactory from the point of view of the country, the shareholder, and the worker. Would you tell us your views—if you were to amalgamate the whole of the mines on the same system as you have amalgamated the smaller units, whether it would have the same effect?—**(Mr. Neuhaus.)** It is a question in respect to which whatever I said would be given as my individual opinion. It has not been considered by the Chamber at all.

1796. What is your personal view?—I should say, looking at it superficially, that it must be to the benefit of the shareholders, and probably ultimately I think it would be to the benefit, from an economic point of view, of all parties concerned in the matter.

Johannesburg, 2 April 1914.] Mr. Hans Neuhaus, Mr. Edward John Way, M.I.C.E., M.I.M.E., and Mr. William Gemmill. [*Mining and Mining Conditions.*

1797. Of course, scientifically, there is no insuperable objection to amalgamation as regards the administration of the mines?—Are you speaking from an engineering point of view?

1798. Yes.—**(Mr. Way.)** There would be no engineering difficulties whatever in the matter. In fact, amalgamation would overcome a great many of the engineering difficulties.

1799. So that it would be an advantage, in many respects, if a scheme like that came about?—I could not say. I only speak from an engineering point of view.

1800. The engineering difficulties which you say would also be overcome would be in the direction of economies?—Absolutely. **(Mr. Neuhaus.)** I should like to say it is a question which requires very wide consideration. Quite superficially, one would think that as small amalgamations have proved successful, bigger ones would also be successful.

1801. Separate administration appears to lead to such a great loss in working. You fight for your white labour and native labour, and the various administrative groups—apart from the duplication of the assets, which is a great loss to the country—compete in various ways. Under amalgamation you would be able to work the mines more profitably, working those which returned the best results and leaving the others to lie fallow until you have accumulated certain funds wherewith to develop them?—Of course, that raises wide issues, and it requires very thorough study before one can express a final opinion.

1802. From a purely economic point of view, it would be a sound thing?—There is one point in regard to an asset being wasted, as you suggested. At all events, it keeps a certain number of people alive. One never knows whether a mine which is not payable to-day may not develop into a payable proposition in two or three years hence.

1803. We have heard about the life of the mines. If you adopted the principle of amalgamation, do not you think the life of the mines would be considerably increased?—Do you mean that some would lie fallow for a period and then be worked?

1804. Yes, instead of the best part of the gold being taken out in thirty years; do you not think they would last longer?—I can imagine that the production would be regularised.

1805. It is better for the country that the mines should last sixty years than thirty?—But you would be losing a certain amount in that way.

1806. The mines would lie fallow?—It depends how many whites and natives would be unemployed and in what way the market for the country's products would be affected.

1807. You assume that white people would be thrown out of employment. But would they be absolutely unfit for any other work?—I do not say so. At present I am not in a position to assume what proportion would be thrown out.

1808. Whatever proportion would be thrown out, would not they be able to get any other work?—Well, the miner, who is a trained miner, in middle life would find it difficult.

1809. I mean on the land, for instance?—I am not a farmer myself, but I presume that even on the land a man needs some experience, which he cannot gain underground in a mine.

1810. It is a very small thing, throwing a few people out of employment, because the world is open to them?—That question may easily be worth while investigating, and it might be found that these people could obtain employment adequately, but it is a matter that needs going into very carefully.

1811. As far as I can see, your only objection seems to be the throwing out of employment of a few white people who could find employment elsewhere?—I have no objection, but there are many questions that would have to be considered before one could be in a position to give a definite opinion about it.

1812. Now, in calculating the tonnage of 550 million tons, which has been referred to, does that include the tonnage in the mines below the payable limit?—No; that is only tons which could be worked at a profit on the present basis of cost.

1813. In estimating your ore reserves, you have a paying limit. What is it?—It would vary from mine to mine.

1814. What do you think the average is?—**(Mr. Way.)** From 4 to 4½ dwts.

1815. That is about 19*s.*?—No. That is the actual amount of gold, but there is extraction, 95 per cent. You may take 90 per cent. for ordinary calculation, and that leaves about 17*s.*, so if your working costs exceed that, you are working at a loss.

1816. We have mines on the Rand that have worked as low as 13*s.* 6*d.* What were the conditions that enabled them to work at that figure?—The width of the reef and the scale of operations, which made an enormous amount of capital expenditure necessary for the initial business.

1817. What tonnage below that payability would be in the mines to-day—under 17*s.* in value—which is not calculated in this 550 million tons? I could not give that.

1818. Could you not make a guess?—No.

1819. Do not all the mines give the ore reserves over and under the payable limit?—Some do and some do not.

1820. So you could not arrive at the full amount?—No, not with accuracy. The estimate of the value and the way in which the value of the ore still left in undeveloped mines is arrived at is described here—the method employed. The working costs were taken at an average of 18*s.* 8*d.*, and you must remember the cost of production is more than that.

1821. Over the whole area that you considered in regard to the life of the mines, you deducted right through the 17*s.* ore?—No—everything below that on the average.

1822. Over the whole area?—Yes.

1823. Developed or undeveloped?—Developed or undeveloped. We had to estimate for the undeveloped.

1824. Then the thirty years as the life of the mines, given by the Chamber of Mines is based on that 4½ dwts.?—It is based on the present working costs of each individual mine. We have allowed each ton in the producing mines as being payable if there were 1*d.* margin on the right side, as compared with its present working costs.

1825. There must be a considerable tonnage of ore under that payable limit in the mines?—Yes.

1826. Which would add considerably to the life of the mines if you could make 1*s.*, 2*s.*, or 3*s.* reduction in the working costs?—I would not make any statement definitely as to whether it would add considerably to the life of the mines or not, but it would add.

1827. I see your recovery value came down 13*s.* between 1902 and 1912?—Yes.

1828. Was that due to a decrease in the value of the rock or due to less sorting or wider stope widths?—I could not say. It might be due to any of those three, or all three, or any two of them.

1829. That has not been settled, then?—The sorting is certainly less than it was, but unless one examined the individual returns of each mine we could not arrive at the true cost.

1830. Should not the Chamber of Mines, as being the guardian of the mining industry, inquire into the matter and find whether the ore is deteriorating or whether it is due to ordinary mechanical causes?—It was down to 1*l.* 7*s.* 11*d.* in 1911, and that is only 2*d.* higher than in 1913, and it went up again to 1*l.* 9*s.*, so we can live in hope. **(Mr. Neuhaus.)** Practically, there has been no variation in the value per ton during the last five years.

1831. Your working costs have gone up 9*d.* or 1*s.*, have they not?—**(Mr. Way.)** No, sir. They have gone down.

1832. Can you tell me in what departments the working costs have gone down?—Management has been more efficient. On the other hand, taxation has been against us. Miners' phthisis contributions have been added on, and increased costs in regard to carrying out the mining regulations, all of which have to be charged to working; so that it shows they have gone down from a management point of view considerably lower than these figures show.

1833. There is a tendency to reduce administrative expenses on the mines?—It is not only a tendency, it is an absolute fact.

1834. So it has not gone down through the reduction of black wages?—No, it has gone down by strict economy and good management.

1835. What impression has been made on the investing public at home by the issue of this report by the Chamber of Mines?—**(Mr. Neuhaus.)** I cannot say.

1836. Has it induced them to take a pessimistic view of the mining industry?—I do not think so.

1837. Do you find it easier to get money for mining development than formerly?—Not less. For instance, the African Banking Corporation has been able to make since then an issue of stock which it has placed among its shareholders.

1838. We have a lot of dormant mines that are capable of development and want capital. Is there any tendency on the part of the European investor to put money into the mines for development?—I am not quite sure if I rightly understand your point.

1839. I want to arrive at the reason for so many mines being closed down. The general excuse is that they cannot get money. I want to know why?—Because the working costs per ton at present are too high relatively to what may be expected as the produce in gold per ton of ore of these mines.

1840. And what remedy would you apply to reduce the working costs in order to induce further capital to come here? Is it amalgamation?—The great remedy which we have put forward consistently is that referred to as the removal of the colour bar, with which Mr. Way has already dealt and in regard to which certain proposals are made in the Economic Commission's report. I would also point out that since the issue of that report two of these shut down mines have been absorbed by a mine with which Mr. Way is connected, and Mr. Way will be able to tell you if the shareholders think they can make something of it.

1841. That particular scheme has been on for five years?—Hardly as long as that, but in spite of the issue of this report it has come to fruition, and it involves the expenditure of a large amount of capital.

1842. But there are a large number of mines absolutely idle and not being worked; surely there must be some reason to give?—Yes, I am well acquainted with the subject from personal experience, and the trouble is that, on the one hand, costs, owing to the restrictions on working in various forms, are too high and taxation is too high as compared with what we may expect the mines to yield. If we got a reduction in costs, as we should do, and which we have every right to expect, I think you would find that efforts would be made to reopen some of these mines and they should be successful.

1843. We all hope for a reduction in costs, but you know it is very remote. Stores take 41 per cent.?—Yes.

1844. You know the prices are cut very fine through competition, and there is very little chance of economising on stores?—Not in prime cost, unless railway rates come down, but there has been a constant improvement in the methods of working, and it may be that we shall use less in future. Not that I would give the impression that there is any waste now. We are always advancing and, as you have heard, the efficiency of the native has increased, and it may increase still further.

1845. 55 per cent. is paid in wages. No reduction is possible there in white or black; in fact, the tendency is for wages to increase per man?—Yes. But we may get more for it.

1846. The amount for stores you are not likely to reduce, and so, altogether, it leaves a margin of about four per cent. which you think you can reduce. Do you think you can make a reduction in the four per cent. sufficient to induce the investor to come in?—Of course, if we get the colour bar removed, we can make reductions in the total though we may not reduce the wages per man.

1847. You have to pay higher wages?—We shall employ fewer.

1848. But you will have to pay higher wages which will balance?—No, I do not think so.

1849. It only leaves you four per cent. to reduce on?—No. On that basis of calculation there would not be much margin, but our basis is totally different. We spend 7½ millions on white wages and 5½ millions on coloured wages. Well, if you remove the colour bar we shall spend less on the total wages, because we shall employ fewer white men and get greater efficiency and shall not cut down the wages of the individual white man, thus achieving an important reduction in costs.

1850. So far as these mines are concerned, what is your opinion about the restrictions or regulations passed for the prevention of miners' phthisis. Are there any complaints that the companies are not fulfilling their part of the obligations? They have not come to my notice

1851. Your opinion is that the mines are doing everything they can?—Yes.

1852. In regard to the obligations put on the miners, do they carry out those obligations?—**(Mr. Way.)** They are liable to be fined if they do not. But you see they have not the incentive that the Company has to see them carried out, because they do not participate to the same extent in the taxation.

1853. But surely the incentive on the part of the worker should be greater because his life is at stake?—You have to take into consideration the peculiar human nature of the miner. I remember that it was not so many years ago when it was necessary to put up a notice in the boarding house that if a man did not wash himself before having his evening meal he would be dismissed, and many were dismissed on that account. It has been difficult to educate these men to cleanly habits. Many men are above reproach in this respect, but they have to suffer for others. One man can upset all attempts at efficiency in this direction.

1854. So there is a certain amount of contributory negligence on the part of the workman?—Yes.

1855. About the inefficiency of the white man: do you not think that the knowledge on the part of the white miner, that the black cannot compete with him, under the regulations, keeps him down in his efficiency?—Yes.

1856. If he knew that the black man could compete with him by having these restrictions removed, do you not think the white man would set himself the task of becoming more efficient?—Yes. That question is entirely dealt with in statement 14 of this report of the Chamber to the Economic Commission. **(Mr. Neuhaus.)** We also express our opinion that the removal of the colour bar would no doubt mean the displacing of a certain amount of white labour from the present mines, but the effect would be that so many more mines would be opened that the total number of white men employed would be increased. **(Mr. Way.)** The majority of the white miners employed in the mining industry acquired their knowledge here, and on account of the native being the labourer their practical knowledge of mining work is inferior to men drawn from other parts of the world; consequently, the curious and unsatisfactory position has arisen of underground overseers supervising natives who are frequently more skilled than themselves. That is what we stated in our evidence. And we quoted statistics of accidents that had occurred, which accidents took place when the native had pointed out the danger to the white man and the latter had taken no notice.

1857. So the effect of the removal of the colour bar would be in the interests of the white miner, by making him more self-respecting, and encouraging him to rise in his profession?—Certainly.

1858. I see you had in January, 1913, 23,000 whites and 200,000 coloured workers employed, which is a little over one to eight, and in December, 1913, 21,000 whites and 150,000 coloured, which is nearly one to seven. Which do you consider the most efficient ratio?—**(Mr. Way.)** I do not consider either of them efficient. There are far too many whites. But that is the most efficient standard we can attain under the existing law and the custom and sentiment and prejudice which prevail. But if you ask me if that is an efficient proportion I say it is not.

1859. Yet the mines could well have done without that 2,000 white men, as they have done?—Yes, they could do without a great many white men, but they must have them under the existing regulations. The regulations are framed with the object of employing as many white men as possible. That is one indirect tax which the industry has to bear.

1860. What is your opinion: if there had been no native labour do you think we could have worked on this scale with white labour?—Not on the present scale of wages and cost of living. That is also gone into in these statements, showing what the position would be if we had to change to white labour from black. There would be very few mines working to-day.

1861. **(Sir Alfred Bateman.)** You were asked, Mr. Neuhaus, as to the amalgamation of all the mines: have you ever considered the amalgamation of all the mines under Government?—**(Mr. Neuhaus.)** No.

1862. Is it unthinkable or economically possible?—I cannot answer that question off-hand. I have never considered it.

1863. Could you give any opinion, Mr. Way?—**(Mr. Way.)** No, I could not give any reply.

1864. In some of these pages presented to the Economic Commission you make a good deal of railway charges as increasing your costs: you say nothing about shipping freights, I think?—No, I do not think we do.

1865. That does not seem to be an element in your mind?—**(Mr. Gemmill.)** It is not a matter of great importance, I think.

1866. But as regards railway charges you say a good deal, and I gather you want more favourable rates?—Yes. **(Mr. Neuhaus.)** For our imports and internal traffic. We refer to the amount of traffic from the coalfields which are within a short distance of these fields.

1867. I do not gather whether you ask for preference over other traffic?—No.

1868. What is the principle you consider fair? The cost on the line of traffic?—**(Mr. Gemmill.)** I think our chief point is the enormous profit made by the railways of South Africa, practically all made by supplying the Witwatersrand, *i.e.*, nearly all made on the interior lines.

1869. Is it an enormous profit now?—It is a very large profit, and, of course, it really, to a large extent, falls ultimately on the mining industry.

1870. The preference that are given are mainly to encourage the export of coal and maize?—Yes, but that is not our point.

1871. You want to be as well treated?—**(Mr. Neuhaus.)** If you segregate the figures of the various lines as they are segregated officially, you will find that certain lines comprising the railway system are worked at a loss and others at a profit, and these profits are utilised to pay interest on the capital of the unpayable lines and make up deficiencies in that direction. Well, it turns out that practically all the profit is made within this northern area. It follows, therefore, that the rates on traffic in this direction have to bear the brunt of the losses owing to the fact that the rates down there are too small. For instance, there is a considerable loss on the harbours every year. That loss has to be made good by the up-country consumers.

1872. And you think that would make a big difference in your costs?—Yes, we are sure of it—directly and indirectly.

Johannesburg, Friday, 3rd April, 1914.

Mr. R. Shanks, Inspector of White Labour, called and examined.

The following letter was submitted to the Commission by the witness:—

Sir,

(1.) My duties as Inspector of White Labour consist:—

(*a*) in receiving and registering applications by employers and employees for the appointment of Boards under the Industrial Disputes Prevention (Transvaal) Act of 1909.

(*b*) corresponding with parties to disputes and arranging for the sitting of boards when such are appointed by the Minister.

(*c*) receiving and filing all reports and recommendations made by boards.

(*d*) keeping a register of all particulars and documents relating to disputes and investigations in reference to same.

(*e*) supplying information to parties to a dispute concerning regulations or proceedings under the Act, and furnish parties to any dispute with the prescribed forms.

(*f*) keeping a register of unemployed white persons with full particulars regarding their occupations.

(*g*) registering all Private Registry Offices on receipt of prescribed fees; prescribing fees chargeable from employers and employees by private registry office keepers, and inspecting the books of such registry offices.

(*h*) establishing branch labour bureaux where required.

(*i*) investigating cases of unemployment amongst white persons.

(*j*) investigating complaints by or on behalf of white employees.

(*k*) making reports from time to time on labour movements, and the conditions of labour, whether in the Transvaal or elsewhere.

(*l*) supervising the conditions of apprenticeship in any undertaking, trade or industry; and other matters affecting white labour.

I mention the above in a condensed form, which may guide your Commission to some extent as to the points with which I am more or less conversant.

(2.) The term "Inspector of White Labour" indicates the existence of a type or class of labour in South Africa other than white, which your Commission will readily appreciate as forming one of the greatest problems this part of the Dominions is confronted with.

In European countries all labour is performed by white people. In South Africa, until more recent times, the white population came in in driblets, always finding a sufficient number of natives willing to perform work for small remuneration. The white race readily apportioned to the native every bit of disagreeable work he did not like to do himself, with the result that much of the labour considered honourable in other countries has come to be looked upon as degrading in South Africa.

It is needless to pretend that all occupations are or can be considered equally desirable, but the reluctance to perform labour so readily undertaken in other quarters of the globe by the white races has been encouraged to an unreasonable extent. The unskilled white worker, even in straitened circumstances, will refuse to do work, because he considers it Kaffir's work.

The skilled tradesmen were supplied with natives to carry his tools, and to lift, turn over, &c., and render other assistance in things he was accustomed to do, and did without difficulty, before coming to South Africa.

The employers of labour, too frequently, whether from environment or a desire to have cheap labour trained for future exploitation, encouraged the prevalent custom so easily acquired, by telling the white men that they should regard themselves as the "aristocrats of labour."

The skilled miner discouraged the white labourer in the mine who plied the pick and shovel, or pushed a trolly on the rails, by telling him he ought to be

ashamed to do Kaffir work, with the result that to-day there are few, if any, white men in the mines who ever had the chance under favourable conditions to settle down to such work as a regular means by which they could earn a livelihood.

Climatic reasons have at times been offered as an excuse that the white man could not do the work as in other countries, an argument which is never applied to the skilled workman who cannot get his Kaffir to do it.

To some extent this evil tendency is being overcome—force of circumstances being the chief educator, but when these ideas prevail amongst the more recent arrivals (say within the last 25 or 30 years), what can be expected from the youth of the country?

During the earlier period referred to above we had neither the very old, nor the very young, in large numbers.

The youth was in demand and could earn easily 10*l.* or 12*l.* a month doing odd jobs as messengers, driving light delivery and other carts, &c. The income of the family being frequently good, future prospects were neglected. Now, it is difficult to get young lads to settle down to learn a trade, partly through restlessness and objection to discipline, and often because they expect to get a high wage while learning a trade.

It is only in recent years that indentured apprenticeship has had any recognition in the Transvaal. "Learner" took the place of "Apprentice," and he was free to leave one employer and go to another at will, and the employer could dispense with his services with the same freedom. Thorough training could not take place under such loose conditions.

(3.) It has frequently been complained that men working on the mines are merely birds of passage; that they do not settle down in the country for good, and that their wives and families are left in other countries. There is truth in the statement, but it is not altogether to be wondered at.

Change of manager, or change of foreman, not infrequently upsets the best calculations and intentions of workmen regarding their families and domestic arrangements.

A complete change of the working staff has taken place on some mines within a month after a new manager has assumed duty.

If "a fool must now and then be right, by chance," it surely follows that out of 100 or 200 men on a given mine a considerable number of them were better fitted for their billets than their superior who discharged them, as in all probability they found employment on some other mine as efficient workmen. I have known men ordered to go to the office for their cheques for the most trivial reasons, when another man was waiting and aware that someone was to be discharged.

It is not to be wondered at that men with families are unwilling to risk the dangers to be encountered where insecurity in employment is ever confronting them.

One has only to judge the feelings of a contractor in the mine having to quit on 24 hours' notice; his work is measured up in his absence and another man starts in his place where he left off.

To dispute the correctness of the measurement is out of the question. He had to sign an agreement to quit his work on 24 hours' notice, and his home (if on the mine property) within 48 hours after dismissal. This often implied removal of families to some temporary abode until work could be found elsewhere, which might only be found at the extreme end of the reef from which he had been ruthlessly discharged.

These conditions which had to be signed on employment may not have been rigidly enforced on all occasions, but they hung over the head of the victim with certainty that he had to break up his home, with his children's education interrupted and set back as a result.

Under such circumstances none can affect surprise that men think oftener than twice before sending for their families to settle on the mines.

This question is now receiving more attention by mining authorities than formerly, and it must redound to the benefit of the shareholders as much as to that of the workmen.

It is claimed that the mine employees are a shifty and restless lot, but it is not a common failing with the married men; even if it were so, the effect, whether produced by the employers or employees, is demoralising.

(4) "Piece" or "contract" work on the mines has been the cause of more ill-feeling between employers and workmen than perhaps any other custom.

Many of the workmen are unable to measure and calculate the value of their work, even approximately, and whether right or wrong they have certainly had some harsh experiences. Men with good and proved ability working for a whole month and then coming out in debt cannot be expected to preserve a pleasant temper. The contract system was long in favour by most of the miners, but there are now an increasing number who favour the "living wage" at a fixed rate on a day's pay.

Some undoubtedly make big money and are ambitious, often to their own destruction.

When the conditions underground were very inferior to what they are now in regard to sanitation, ventilation, water and the supply of sprays for allaying the dust, the men were as careless as any of the employers. In their anxiety to have big returns they would rush into the working places after blasting operations when it was dense with dust and dynamite fumes. For this the tales of phthisis tell. In such a dangerous calling contracting tends to encourage risks from what pass as accidents—a temptation which should be discouraged as much as possible.

It is all very well to advise men to be careful, but even when the work is known to be hazardous the temptation remains to take risks where success is expected to increase the income. A reduction of the toll from accidents and phthisis might have more than balanced the gains to miners and mine-owners by the adoption of a rational day's pay in preference to the contract system.

(5) At present it would be unwise to predict that capital expenditure on public and private buildings, and on construction work on the mines, could be continued on a scale equal to that which has been maintained during the past five years, but it must be recognised that a considerable number of those who have recently taken to the cultivation of the soil have been men possessed of considerable means, if not living in affluence, and the price of land has greatly advanced.

The amount of capital required to start farming on a moderate scale in South Africa would be regarded as comparative wealth in other countries, so that the humble class who would take to the land are, without assistance in some form, very much restricted.

Very few are able to build a house, construct a dam, purchase cattle, implements, and seed; plough, plant, and reap without a fair reserve. Disease, blight, and drought may not exceed the difficulties encountered by farmers in other countries, but where the original outlay is higher than in most countries, a season of disaster is more difficult to recover.

I shall be pleased to reply as best I can to such other questions as your Commission may direct.

I have, &c.,
R. Shanks,
2nd April. Inspector of White Labour.

1873. **(Chairman.)** You are Inspector of White Labour?—Yes.

1874. Is that a Government appointment?—Yes.

1875. Which you have held for how many years?—Six years.

1876. And that gives you an intimate acquaintance with the labour conditions here, so far as they concern white labour?—Yes.

1877. I won't trouble you to read the whole of your memorandum, for which we are indebted, but I will

ask you certain questions upon it. First of all, in regard to the Labour Bureau, which is under your supervision, how far has that been a practical success?—Not very far.

1878. Why?—Simply because the employer does not take any advantage of it and says he does not require it nor feel the necessity of it. In other words, he acts without applying to the Labour Bureau. That is the large employer.

1879. What is the result of that system? Is it detrimental to the interests of the white labourer?—It simply means that white labour must roam over the country looking for employment.

1880. Is white labour engaged at the different mines?—Yes. They have men coming round every morning asking for employment.

1881. Who deals with that?—Usually the mine captain for the underground staff, and they have men in the different departments such as the engineering, the carpentering, and so on. That comes under the surface manager.

1882. So the man who is out of employment has to go the different rounds?—Yes, practically.

1883. There is no central office?—Yes, but it is not taken advantage of.

1884. That is to say, if he applies there it does not improve his chances of getting employment?—No.

1885. Do you attribute the instability which exists among white labour to that?—It is certainly one factor, and an important one, in my opinion, because if a man wants employment it simply means that he has to go from one place to another to look for it.

1886. I do not ask you to give the figures in regard to the very rapid changes from mine to mine of white labour, because that is a matter of public notoriety. But what is the main cause of that in your judgment?—It is caused to some extent you will find, as in all large communities, by a certain number of shiftless people continually moving from one place of employment to another. But I think it is very much increased here by the very unreasonable way, I should say, in which the men have been dismissed from their employment, on some trivial pretext or other. They dismiss men without very much cause on the mines.

1887. Who has the right of dismissal—the manager or the mine captain or the miners' boss down below?—The mine captain and the mine foreman very often do it. I think it is being improved now, but it used to be very prevalent.

1888. What is the system which is being adopted now?—I know in some mines instructions have been given to managers that they must see to the actual dismissals.

1889. Can you state at all the proportion of these men who shift from mine to mine and how many leave the mines of their own accord, and how many are dismissed?—No, I could not tell you that. The only thing I know is the information which was obtained by the Government Mining Engineer last year when I think it was about 13 per cent. left within the month.

1890. My point is not how many left, but of those who leave what proportion leave of their own free will and what proportion are dismissed by their superiors?—I could not say the proportions.

1891. Do you consider the contract system is responsible largely or mainly for this perpetual migration?—I believe it has a great deal to do with it.

1892. Do you favour the contract system from your experience?—No.*

1893. What do you favour as a substitute?—Well I favour the regular standard wage such as carpenters, bricklayers, and others receive.

1894. Do you consider this piecework the cause of unrest and discontent?—It largely has been.

1895. Is that diminishing?—I think it is to some extent because there is far more daywork being done now than formerly.

1896. That is day's pay, or day's pay plus bonus?—Plus bonus.

1897. Now you state in your letter that the unskilled white worker, even in straitened circumstances, will refuse to do work because it is "Kaffir's work." Do you consider that is a permanent condition in this country, or a condition which is likely to be modified or changed?—I am hopeful that it will be modified and changed, but when once that gets rooted it is a rather difficult thing to eradicate.

1898. And I suppose it is rooted?—Well it is more or less.

1899. Do you expect that it will be modified?—I think myself that a number of unskilled labourers never get the opportunity to settle down to it.

1900. Where it has been tried it has been purely from an experimental point of view?—Largely. It has been done by sympathetic people to find temporary employment for men when times are bad.

1901. That is semi-philanthropic?—Yes.

1902. And these unskilled white workers find employment then at what day-rates?—When they were employed largely in the mines it was mostly at piecework rates—paid on results, either by tonnage or measurement. In regard to moving rock from the stopes into trollies and moving it to the surface they were paid at piecework rates.

1903. And when it was on day rates, what rates was it at?—There were some employed through the Bureau at piece rates. Some did fairly well and others came out badly.

1904. And those who did fairly well, what did they make a day?—As high as thirteen and fourteen shillings to my knowledge in some cases. When they did that they were cut down.

1905. You say that the white men regard themselves as the aristocrats of labour?—No, I think I said they were encouraged to do that.

1906. Then, as a matter of fact, the work they do is very largely supervision?—Very largely it is.

1907. Are they trained at all to exercise that supervision efficiently?—I do not think the training has been very much gone into here at all.

1908. That is to say, the white miner learns to do one kind of work, namely, mining with his own hands, and he is called upon then to do something totally different—to supervise others?—That is largely the case with coloured labour, of course. He is used to do the hard grafting labour.

1909. Is the kind of training which a man receives in mining itself that which is most suitable to make him an efficient supervisor of native labour?—No. I think there are many responsibilities that attach to it, besides the supervision of the white man himself, which he is not really experienced and qualified in. He may be qualified to manage a number of Kaffirs and tell them what to do, but in the mining itself I think a great deal is to be known apart from the directing of the natives.

1910. And similarly he might be a very good miner and a very bad supervisor?—He might.

1911. What is your view of the operation of what is termed the "colour bar"?—In what respect?

1912. That is to say, certain definite employment being reserved either by law or feeling to white men and certain other employment to natives?—I think myself that the colour bar should not act—that there should be qualifications recognised and established, but when it comes to the native as a whole I think it is quite right that there might be a colour bar, simply because you have a serious difficulty in finding out where responsibility could be put down to men safely.

1913. This view, that certain employments are what they call "Kaffir's work" is practically an inverted colour bar—it reserves certain employments to natives?—Yes.

1914. Whereas other employments are reserved to white men?—But largely, I think, in regard to responsibility that is looked for in regard to administration.

1915. In view of safety, do you mean?—Yes.

1916. How far do you think that is either desirable or necessary?—Well, with a black population so ignorant in regard to many things connected with industrial employment, I think difficulties would be presented very often by having men appointed to positions that they were altogether unqualified for in the same way as white men might be to a large extent.

1917. Then you regard it as rather a question of individual qualification?—I do.

* See Appendix VI., p. 110.

1918. It depends on the qualification of the individual and his ability to discharge certain functions. You say something regarding apprentices, the number of apprentices being trained is very small?—On the mines it has been extended considerably of late, but outside the mines it is not in existence to any great extent.

1919. Why is that?—Well, there are various reasons, of course. Coming to carpentering work, for instance, they maintain, and I think rightly, that you may have a boom in trade and times very busy, and then have a collapse, and you have a difficulty in finding employment to keep the apprentices going at a time when trade is dull. They are unable to make doors and windows in consequence of an unlimited supply from oversea, and the building trade particularly claims that they should have protection in order to go into the manufacturing question with safety.

1920. Taking a large and long view of the interests of the white workers in this country, is not the absence of apprentices a danger?—I think it is. It means that we shall always have to import men from oversea, and youths are growing up without skilled occupations.

1921. Then what occupations have the sons of the white workers here?—They have occupations in connection with the mines. The mines, I believe, give preference to the sons of men working on the mines and in the workshops.

1922. But those men, you say, do not become skilled?—Well, they have to go through the apprenticeship course. That is limited, of course. Take a carpenter. He would be doing mining work principally, and he would not be much good for other work. In other work he would be a rough carpenter mostly.

1923. Looking to the future of the present system, are capable white workers being trained up to make a good career for themselves and become efficient?—In some cases it is extremely limited—to the extent that a youth, if he enters a trade, is often not bound by any indenture and he can leave if he thinks he can earn a shilling or two more, and, similarly, the employer can dismiss him.

1924. Is not that detrimental to the interests of both classes?—I think it is.

1925. How do you suggest it should be remedied?—By a healthy public opinion in favour of the indenture system and conditions being favourable to the employment of young men. I do not say that you can do it by law: no one is required to indenture himself by compulsion.

1926. Now, you say that a man has frequently to quit a mine on 24 hours' notice—a contractor. His work is measured up in his absence and another man started in his place where he left off?—That is quite common. The agreement in the case of all the mines is practically 24 hours' notice.

1927. Do you suggest that it would be preferable and practicable to have longer notice?—Yes, I think it would. I think that when such short notice as that exists, there is a great tendency to put it into operation needlessly.

1928. The longer notice would be reciprocal?—I think it should. I do not refer to insubordination, of course. You must have discipline.

1929. Would a longer notice be favoured by white labour?—I think it would.

1930. And what would be the view taken by the mine managers?—That I would not be prepared to say, but I am sure it would have a more steadying effect.

1931. And you think it would be fairer to the worker?—I think it would. I think that by the time the notice expired perhaps they would find out that they had really made a mountain out of a molehill, and there would be no dismissal at all.

1932. That is to say in cases where these dismissals are due to fits of temper?—A good deal is done in that way.

1933. And you would say that many employees who are called shifty and restless would be steadied by it?—I think it would have a steadying effect.

1934. Now at the end of your memorandum you speak about the amount of capital required to start farming on a moderate scale in South Africa. Is it the case that any considerable number of white workers on the mines, after they have made a little money, or otherwise, go in for farming?—There is a proportion, though it is small, I think. There are more people leaving the farms and going into mining and railway work.

1935. Why is that?—A large number of people on the farms live in very humble circumstances, and I think the attractions connected with the active life has something to do with it, and they are better off in many cases than they could be on the farms.

1936. Can you say whether health conditions in the mines have been very largely improved during the last two years?—I do not know that I could say the improvement in health has been shown particularly during the last two years, because the effects of previous improvements have not shown, but I do think the mines are very much better than they were.

1937. You would expect the ravages of miner's phthisis to diminish rapidly in the near future?—I think so—not speaking as an expert, but simply as an observer.

1938. And you have opportunities of knowing. You visit these mines frequently?—Yes, occasionally.

1939. Do you think the conditions which prevail now are satisfactory as regards the health of the miners?—I think they are doing pretty well, as much as can be expected. I think they are carrying out all reasonable suggestions that have been made as far as possible. If there is anything else to be discovered I think they would be inclined to adopt it, too.

1940. The spirit of improvement is there?—Oh, certainly.

1941. **(Sir Jan Langerman.)** Does that improvement refer to the workmen as well? Do they observe the regulations laid down for the prevention of miner's phthisis?—Not always.

1942. So they are really contributing towards the upkeep of insanitary conditions?—They have been contributory to it in many instances.

1943. Now about the standard wage—I suppose you will admit that there is a great distinction between skilled workmen as to the quality of their skill?—All over the world.

1944. But we are referring to this place now?—I do not make any exception.

1945. There is a large difference between men in regard to the quality of their work?—Yes.

1946. How would you fix a standard wage? Would you need a grade of standard wage according to capability?—That is always judged in cases where the standard wage exists by the capabilities of the worker. It simply means employing a man who comes up to the standard requirements.

1947. But is there such a thing as a standard task at all? Is there a standard task set down as a *quid pro quo* for standard payment?—Yes; there is the average amount of work that can be expected to be performed for an average wage.

1948. Suppose we fix the standard wage for an ordinary mechanic at 20*s*.?—Yes.

1949. A good mechanic would get that and a bad mechanic would get that?—Not necessarily. He would be required to come up to a certain standard and give a certain return in the shape of work.

1950. Then it is in the opinion of the manager of the employer as to whether the return is up to the standard, and he must say whether that standard is fulfilled or not?—Yes.

1951. Then if the man is sacked he has no complaint?—Quite so. It simply means that he is inefficient.

1952. Then why should an inefficient man get a longer notice than 24 hours?—It would depend, if you were to dismiss him on 24 hours' notice as being altogether inefficient. I do not think I applied it in a case of that kind. You might discover a man to be inefficient in two hours. I do not say it applies there, but where you have men that have shown they are capable over a certain period, and then, perhaps, on account of some trivial matter those men are dismissed at 24 hours' notice.

1953. Then you would not attempt to interfere with the right of an employer to dismiss a man summarily if he did not come up to the standard?—Not at all, if it were simply a question of discovering that a man was inefficient.

1954. So that in very isolated cases, then, a longer notice should be required?—I think that after a man

has been taken on, for instance, for a week, or a month, they should be able to find out during that time whether he is qualified or not, and after such period as that he should receive a little more consideration.

1955. But is it not the habit of men during a time of probation to work hard and then slack off?—I take it that most of the supervisors of labour have a knowledge of what can be kept up.

1956. Well, having passed that seven days' probation, you claim that a man should have longer notice?—It depends what you mean by slacking off. That has a very indefinite meaning. It might mean a slacking off that would be hardly perceptible and it might mean loafing.

1957. Well, it would not be to the interests of any employer or a company to dismiss a first-class workman out of sheer wantonness, so to speak?—My point is, that it has been done, and at the present time it is regarded as right to be done.

1958. But would an employer do it in that case against his own interests?—I should think not.

1959. So that if they do dismiss a man, presumably there is some good reason?—Yes.

1960. Here, you say, the employers desire to have cheap labour trained for future exploitation. What do you mean by that?—I think there is a context.

1961. "And encourage the prevalent custom so easily acquired, of telling the white men that they should regard themselves as the aristocrats of labour." That is a little bit of padding, is it not, because no employer to my knowledge has ever told a workman that he must ride the high horse because he is an aristocrat of labour?—It has been done.

1962. But what do you mean by "having cheap labour trained for future exploitation"?—There is apparently a feeling on the part of the employer that it would be far better if he could have natives skilled in every department and skilled white men to teach the natives to become skilled, so that when they were skilled he could dispense with the white men's services very largely and deal with the native, who is very docile and not particularly given to organisation or standing up for his rights and for a higher standard of life.

1963. Looking to the interests of the employer, do you not think that the employers would have a perfect right to employ the black man, who belongs to this country, if his work is as good as that of a white man who offers his services at a higher rate?—He is doing it now.

1964. And do you not think he is perfectly justified in doing it?—He is justified in doing it so long as he can get equal services, but, of course, he does not care to pay equal money.

1965. You have had a lot of people passing through your hands from time to time applying for employment, and you visit the mines very often, too. Do you think that something might be done to stop a great deal of the insobriety which exists among white miners?—It is a very difficult thing. Personally, I am a teetotaller.

1966. It is a sad thing that there is so much insobriety, and do you not think something could be done by the employers and also the Trades Unions to try to minimise that evil?—To my mind it is more a question of education, not in the ordinary acceptation of the term, but as to the advisability of leaving liquors alone.

1967. But there is no chance of teaching them to be moderate. They will either go the whole hog or none at all?—As long as liquor is freely sold there is a difficulty in finding a lode line.

1968. Would you advocate local option on the mines as regards the consumption of drink?—I favour it myself.

1969. You think that if local option could be carried out on any mine the miners, for that reason, would not leave that mine?—I think local option should cover a considerable district. I do not think you could apply it to an isolated mine.

1970. But what I mean is this. You know the canteens are distributed along the reef and the miners can get as much drink as they like, and apart from that they have the system of the bottle store?—Yes.

1971. These bottle stores have free access to the mines and to every married and single quarter. They take orders and they fill the single rooms of the men with cases of whisky?—Yes.

1972. They get paid at the end of the month. On Saturday the man starts with a case of whisky and goes on drinking all day Sunday, and does not stop until it is finished, and he is absolutely incapable on Monday morning, and often on Tuesday as well. Do you not think that if that were prohibited on mines it would have a better effect on the morale of the men?—Well, I prefer local option rather than prohibition.

1973. I mean the mine should be able to say these bottle stores should not have access to the mine property and not allow them to sell cases of whisky and leave them in the rooms?—I do not know how that would work. I think a man would simply order the stuff from the bottle store and would get it just the same.

1974. That is the custom at the present moment, and it is most demoralising to the men, as well as disorganising the work of the mines?—Yes.

1975. Can you take any steps or make any recommendations in regard the facilities which these bottle stores have of visiting the mines and selling whisky on credit? Even the fact of selling for cash might also have a deterrent effect, but at the present time they are allowed to sell on credit, and when the cheque comes at the end of the month they grab that cheque?—I think if the credit system were not recognised in the law courts it might have some effect.

1976. **(Sir Alfred Bateman.)** As regards the system of Labour Bureaux, where is the Central Labour Bureau?—Here, in this building.

1977. Is it much used?—To the extent of about 200 or 300 a month, even at a time like the present.

1978. From my personal experience of Labour Bureaux in England, they did not get much patronage from the masters until they canvassed them all. The Manager of the Labour Exchange saw the manufacturers and employers. Has that been done here in regard to the mines?—So far as the mines are concerned, I think it was done, and at the time the system was started we had very valuable assistance from Sir Lionel Phillips, who took a great interest in the organisation about six years ago. Quite a number of men were employed underground at that time on work which is usually regarded as Kaffir's work. It was advertised as well as it possibly could be, and it is well known at the present time, but I must say that the white labour referred to was discontinued.

1979. This Bureau is only for white labour, I understand?—Yes.

1980. Does the Bureau take any notice of the wages which are paid to the workman, or simply put the man in communication with the employer?—No. In all cases we endeavour to find out what the wages will be.

1981. Would you let a man go at an unfair wage?—We have no means of preventing that. A man may take anything that is acceptable to him. But where it is a case of disturbance, or labour disputes, or anything of that sort, we have nothing to do with it; we never send people out where there are disputes without letting them know.

1982. You take the same policy as is followed in Great Britain?—Yes, in that respect.

1983. What is the attitude of the trade unions to the Labour Bureau? Do they like it?—As a rule, they practically act as a labour bureau for themselves. It is only natural that the trades unions should find employment for their own fellow members. Very often it is known that a place is to be vacated, and some union man is sent along to fill it. They have always a certain number of union men idle and they naturally advise the officials of the society.

1984. This office is not used by the Trade Unions?—No.

1985. In England many of the Labour Bureaux are used for meetings of the Council or joint meetings of the trade unions, and sometimes for workmen to keep their tools at. There is no such thing here, I suppose?—No.

1986. That has been found to bring the trades unions very much into line?—Yes.

1987. I suppose it is not wanted here?—No; they have their own halls.

1988. In England it was mostly a case of meeting in public houses at one time?—As a rule, I think, they meet in their own private halls in this country. In Johannesburg they have the Trades Hall.

1989. Then you referred to the practice of sending people away at 24 hours' notice, and I gathered from you that you were of opinion that if there were longer notice a man might not go at all?—I said I thought it would have a steadying effect.

1990. Is temper short here? I mean has the climate anything to do with short tempers?—I think temper is perhaps modified in some ways here more than in other places.

1991. I was referring to the altitude?—I do not think it makes much difference. I have seen as many fighting temperaments in the Old Country as I have seen here, I think.

1992. As regards the question of drink, and supplying it to these white miners, do you think it would be possible to label a man, so to speak, and mark him as a man who is not to be supplied with drink?—I think there is something in that. I believe that principle exists in England now, where a man is shown to be a habitual drunkard.

1993. Yes; he is not able to obtain drink?—So I understand.

1994. Do you not think that would be better than stopping all the moderate drinkers from having their glass of whisky?—Perhaps so.

1995. You say apprenticeship has rather declined here. But is there not here, as in England, a modified apprenticeship, where they are not bound for any period?—Yes. I think they are beginning to recognise to some extent that is a mistake, as they are in America. I understand that in America they are finding it increasingly difficult to find superior men capable of taking charge of different departments, because they are not fully trained. The men are simply accustomed to do a particular class of work and nothing beyond that.

1996. **(Mr. Sinclair.)** There is something as to which I should like to get an explanation, if possible. The employers tell us that white labour is unstable and shifty—that it moves about after the big cheque. You suggest, if I understand you aright, that the arbitrary treatment by the mines of these men accounts, to some extent, for this moving about. That seems to want reconciliation, does it not? One of those attitudes cannot be absolutely correct. What have you to say as to that, bearing in mind that the employers want the labour?—I think it hangs largely on the colour question. It is well enough known by every one who has lived long in the country and seen the effects of coloured labour that you can deal with coloured labour in a very much harsher way than with white labour.

1997. But if the employer wants men badly, does it not seem inconsistent that he should treat them so harshly that they will not stay? That is what your view seems to suggest to my mind, and that is what I want to try to reconcile?—The native is very easily managed in that respect, and he can be treated pretty roughly. Rough treatment that he will stand will not be put up with by a white man; and the overseer—the white man—has a preference for the coloured simply because he can boss him up. I think that is it.

1998. But does he get in that way the class of labour that it is suggested he wants?—I do not think he does.

1999. You see, what is in my mind is the unlikelihood that the employer who wants the man will treat him in such a way as makes it unlikely that he will keep him?—I think the pursuit of coloured labour is carried on to a greater extent than would be even profitable to the employer.

2000. Now come down to bed-rock. Which do you suggest is most to blame for this—the instability of the worker, the roving disposition of the worker, or the arbitrary treatment by the employer?—Both, in my opinion.

2001. You cannot measure the portion of blame that each should carry?—No. I think they both hang on the system which has worked into the country, in my opinion, simply by degrees.

2002. And that perhaps most fairly approximates to the real position—that both are to blame?—Yes.

2003. Now I gather from your evidence that you do not favour the contract system?—No.

2004. If I understand you aright, you suggest that the contract is often used to cut down wages, and when it is known how much a good worker can earn under the contract system, the daily wage previously paid for that work is cut down. Is that what you wish to convey?—It is thought that is so.

2005. And that is, is it not, one of the leading reasons why trades unions prefer the day wage to the contract system?—That is one of the reasons, but not altogether. It is partly a reason, I think.

2006. Now one difficulty in the way of paying a standard wage all round is that there is a tendency, is there not, to reduce the efficiency of the good worker? He is apt, is he not, to reduce his labour to the level of the poorest worker when he is getting the same wage?—That is the tendency.

2007. Could not that be met by a system which obtains in some countries of giving the less competent worker an exemption certificate, which would entitle the employer to employ him without coming to loggerheads with the union, at a lower wage than the standard wage?—Yes, that is done.

2008. Then, if that is done, the system of paying a standard daily wage would not seem to have any objection, and it would seem the best system to adopt?—Yes, for competent men.

2009. You spoke as to underground conditions Does it fall within the province of your office or the Department of which you are an officer to care for the underground conditions, or are they looked after by a separate Department?—They are looked after by the Government Mining Engineer and the Inspectors of Mines.

2010. In regard to bottle store licences, did I understand you to say that liquor may be freely and indiscriminately supplied by the bottle? Does the bottle licence system still exist in the Union of South Africa under which grocers and storekeepers may supply liquor in the bottle?—Not grocers—only liquor sellers.

2011. The system of selling by bottle obtains in this country?—Yes.

2012. And I understand you to say that liquor may be "chalked up" against the buyer and that the seller may sue the buyer for the liquor supplied and obtain judgment in the Courts?—Quite so.

2012A. Would it not greatly tend to minimise the evil if the bottle licences as regards stores were abolished altogether?—I think it would.

2013. And if credit given for liquor supplied could not be recovered?—Certainly, just as in the Old Country.

2014. And as in other countries as well?—As in other countries too.

2015. **(Mr. Lorimer.)** Are you appointed by the Government?—Yes.

2016. And are you under the Minister of Mines?—Yes.

2017. And do you report to the Minister such things as you have told us in this statement of yours to-day?—Yes.

2018. In regard to the arbitrary treatment of workmen and so on?—Yes; in various forms.

2019. And does he take any action?—Well, any action which is taken at the present time is largely in regard to measures which have been brought before the country and which are likely to be presented to Parliament soon.

2020. You say here that men of good and proved ability working for a whole month and then coming out in debt cannot be expected to preserve a pleasant temper?—Yes.

2021. But do such things happen?—Yes.

2022. In the case of men of good and proved ability? If a man is a competent man and works for a whole month, he must know whether anything abnormal has occurred in the work during that time and he could call attention to it?—Yes.

2023. Do you mean to suggest that in that case the man is cheated?—I can only point to the actual cost sheets that have come to my notice, where, for

instance, a man had earned for 11 months a little over 50*l.* a month, and——

2024. It seems to me impossible that experienced men could work for a whole month on a contract and at a contract price and then come out in debt without something abnormal having occurred during the progress of the contract and that they would know?—I can just tell you of a case where a man worked for 11 months and earned over 50*l.* a month and in the twelfth month he came out 50*l.* in debt.

2025. And was he a competent worker? Had he done similar work before?—He had earned 50*l.* a month for 11 months.

2026. Was there a balance at the end of each month?—Yes. I could not understand it myself at first, but I came to understand it.

2027. Now, taking the question of wages, do you advocate a day wage?—Preferably to the present system.

2028. And you say that what has come into favour is the day's pay plus bonus. I want to know how the bonus is to be calculated?—As a rule, the bonus is paid after reaching a certain amount of efficiency; that is to say, that they displace so much rock, for instance, and receive a bonus over a certain amount.

2029. Owing to the fact that the white men had no hand work, I do not see on what basis the bonus could be calculated?—One can direct operations even if others do the work.

2030. But a system of simply day's pay, without any qualification at all, and putting every man on the same footing might mean that the indifferent man would receive more than he was worth, would it not?—Well, of course, a mine does not prefer keeping an indifferent man.

2031. At the same time, even an indifferent man would probably regard himself as being worth as much as the best?—Not necessarily.

2032. Would not that tend to reduce the demand for labour if there were a minimum wage fixed and each man were able to get that? Then the mines would naturally take the best men?—I think it would increase the demand for efficient labour, and not reduce it.

2033. Now, about the training of apprentices. What are they apprenticed to?—Such occupations as exist, and they are not very numerous.

2034. You mean carpenters, blacksmiths, and so on?—Yes.

2035. Is there any technical instruction in the city?—Yes.

2036. Is there a regular system of apprenticeship?—Yes, in one or two engineering firms they have a regular apprenticeship.

2037. And do they get boys regularly to agree to undergo apprenticeship?—Yes; they are getting them to indenture.

2038. Are the boys quite willing to enter on such a system?—This particular firm I refer to have more boys than they can place.

2039. Unless the boys obey the system willingly, it will not work, but if they do it would be a good thing for everybody?—They will not employ these boys until they have put in three months' trial in the first place.

[*For an additional statement by this witness, dealing with the question of the contract system of payment of white miners, see Appendix VI., p.* 110.]

Mr. Thomas Matthews, General Secretary of the South African Miners' Union, called and examined.

2040. **(Chairman.)** Have you any official position?—I am General Secretary of the South African Miners' Union.

2041. You appear to give evidence on the subject of the position of the mining industry, and particularly in regard to the employment of white and black labour on the mines?—Yes. I can give you a statement that the Society has generally acted on in the past, but, of course, I have not sent in a written statement of their views, because the course of action taken is largely agreed to by us.

2042. You might state your individual views?—In regard to the subject of the development of the natural resources of the country, whether attained or attainable, would you like to have our views regarding the situation as it stands here now *re* black labour and efficiency and white labour?

2043. Certainly.—Well, Gentlemen, taking the point of view of the white workers, I may say that during the past thirteen years there has been continual strife owing to the encroachment of the black man on what we have always considered to be the real sphere of the white man. We had a strike some seven years ago, and the strike occurred through the industry asking a few men to run an extra large machine. The men argued that two machines were all that they were able to run efficiently. I do not know whether any of you gentlemen have any underground experience—I know Sir Jan Langerman has—but it is a question as to whether the white man should become a supervisor or whether he should be the operator himself. It is a grave question, and an economic question that we shall not be able to deal with off-hand with any degree of success; but having been in the United States when a boy, where this thing also came up, I believe that the side taken up by my own class is the right one. Now, the question is this: if South Africa is to become an asset to the Empire at large, we must try to make the Empire a white man's empire, giving those whose life and experience allows it that degree of civilisation which is equal to that of England and Australia. Otherwise, it will resolve itself into this—that South Africa, with its cheap labour, will be black and the Empire will lose South Africa, or that we must at all times hold the black man in his sphere, and give all the work we can possibly to whites, without encroaching on the sphere of the black man. In the United States, when I was a lad in Alabama, the black man became organised there into a society of his own, and he was free; and it was agreed there, and also in Montana and elsewhere, that the black man, who is of a far higher intellectual type than here, should use his intellect in so far as he could without injury to the body politic, and we asked them to organise for as high wages as they could get. Now, for my own part, or on behalf of my Society here, what we do say is this: that the mining industry or any other industry has no right to have the black man a slave as he is, and to have him under the ægis of any law, to have him to compete with us—not allowed to strike, not allowed to agitate, not allowed to be any higher than he is—a raw aboriginal. What the white artisans here ask is that, if the black man is to compete with us, the law which we make should not help him in any way as against us. Seven years ago we got beaten with our strike and had to take on three, four, and five machines. The strike of July last was on a question of longer hours, as you will have read. I do not want to go into the ethics of that, and I am afraid we have not got time, but we have been damned, I consider, through no fault of our own. We have been called hard names here, but I can assure you I think myself equal in any way to Mr. Jan Smuts or any of his satellites. Now for the Government to declare martial law and prevent us from winning the strike on economic grounds shows that, leaving out the question of ethics or first principles of Western civilisation, there will come a time for South Africa, if you agree that laws ought to be made bolstering up the Kaffir as against the white worker, when it will be of no material benefit to the Empire. If Australia can keep out the Chinamen, and they have done so to the welfare of the whole community—leaving out the equitable or rational point of view that you have the right to buy where you can, and all the likes of that—we argue that if Australia can, on long lines of sound policy, build up a nation on a high standard of civilisation, we have the same right here. Because the Kaffir is here already, we have no right to say it is his land. The Kaffir ousted the aboriginals ahead of him, and the Bantus ousted the Hottentots, and the Dutchman ousted the Kaffir, and we are now trying to oust the Kaffir from those spheres of industry which we maintain are the proper sphere of the white man. As a first principle, I agree that every man

has a right to live, whoever he is, but if those in power in South Africa intend to make laws bolstering up the Kaffir in the industrial sphere, there will be no hope for the white race, and Johannesburg and the rest of South Africa will be reduced to the same state as Basutoland to-day.

2044. How do you propose to fix the limits between the white and native worker?—Well, what we agree is this: that if the mines cannot run without Kaffir labour they have the right to hire Kaffirs. We state, however, that seeing that phthisis is so prevalent, and the Mining Regulations are so onerous, no white man ought to be allowed to run more than 25 hammer boys, or two or three machines. It is agreed in the Regulations that in coal mines one white man ought not to run 50 natives. Well, we have evidence that natives in the coal mines do such work as blasting and coal getting, and the ultimate outcome is that accidents occur, and heavy death returns are the result. On the Witwatersrand we have regulations as regards the work that natives must do, but the fact is that the way they are carried out is not satisfactory. One man told me to-day, for instance, that he has had six of these machines with a number of boys, and after setting one machine to work and going to another, the boys altered the machine and drilled into a misfired hole, with the result that an accident occurred and one of them was seriously injured, together with two lashing boys. Now the mine-owners will tell you, of course, that it was the man's fault, but if we are going to have overseers to look after 30 or 40 boys with 12 or 14 machines, they will be unable to do it, and the mine-owners will have to be responsible for any accidents that result. Because they have no right to ask men to work under circumstances where the danger is so great.

2045. What do you say is the cause of the great instability of white labour—the men leaving one mine and going to another with such frequency?—Because there is no *esprit de corps* among the body of miners, from what I can see. I have been here for 16 years. I spent 16 in America and 15 in England, and I can say that elsewhere, in England and in America, there was more of a feeling of over-lordship, so to speak, on the part of the mine-owner, and there was also more of a feeling of brotherhood with regard to the mine managers, and a spirit of *esprit de corps* among the men. Where I was in Butte, Montana, there were 20,000 white men underground, and a man could always get work under one boss for years, or if he happened to move away, he would be always taken back. Here, it seems to me, a very different state of things obtains. I can say honestly that there are some very good mine managers here, but I am sorry to say I have known of instances where a new manager has come on to a property, and has asked an artisan how long he has been there. The man replies, "Nine years," and the manager says, "It is about time you got out—you have been here too long." Well, it may look humorous, but the fact is that probably the manager felt that man had been there too long and knew the ropes too well, and he would not get the same amount of work out of him as another. Generally, the feeling on this Witwatersrand is: we want all the profits we can get, less working costs, quite immaterial as to what happens to the men or what may result. It is simply and purely a capitalistic scheme of society, where we have no function or power. In practice, they are like the Romans of old: This is English, this is Dutch, this is French, and so on, but we have no cohesion and no national spirit between us which holds us together as a race, and, therefore, the custom that existed in England, where it was an honour for a lad to follow in his father's footsteps; and where the mine manager knew the lad's father and his grandfather, and there existed a sort of mutual tie, does not exist. We do not care a hang who you are—whether black, white, red, yellow, or anything else; whether you are British, American, or German—we are going to reduce working costs, so will you do this work at this price or not? If so, we will hire you until such time as we care to dismiss you. But there is never any attempt here to form a government of the people where we can feel as brothers and settle down.

2046. What is your view of the contract system?—For the past three years, I have been arguing against the contract system, and trying at all times to get men to accept the average earnings of the Witwatersrand as their average standard wage, and to insist first of all on a reasonable day's pay—that is 25*s.* a day for machines and 1*l.* a day for hammer men. Now, we had 7,000 men in our Society in January—they are somewhat afraid now, but still they are gradually coming up again. We never discussed with the 7,000 as to whether they preferred the contract system or not, but it has been agreed on many occasions that we stand for 25*s.* a day for machine men and 1*l.* a day for hammermen, and if there should be no contract system I think they would be satisfied with that. But, still, I must say there are quite a few of our men who would like to go on contract and who will work longer hours than the law allows. Naturally, they die, and those who are left behind have to look after their wives and families. And I may tell you that on this Rand, very few white miners ever die worth 1,000*l.* I know two or three who died worth two or three thousand pounds, but in the majority of cases, and I have known quite a few, the miner after six or eight or twelve months' illness, has died of phthisis and left practically not a cent for his wife and dependants.

2047. That is due to what?—That is due largely to the arduousness of their lives underground. Very few men are temperate, because the average miner, when he comes off shift, feels the need of a stimulant, and I may state that I do not wonder at it, because when you have been down a mine for eight hours among a crowd of dirty, evil-smelling Kaffirs, working hard and using up all your mental energy, it is enough to break down the moral fibre of the average man. He feels he wants a drink, and the result is that he goes too far, and it injures him morally. I do not know that it injures him mentally, but he certainly becomes somewhat broken in his resolutions. Arising out of the question of the contract system, I may tell you that some time ago—and this is an illustration—three men came in from one mine, who had worked in the same stope, and each of them came out in debt. The Society gave one of them 5*l.* to pay the house rent. Now can you understand those men working for 16, 18, or 20 days and coming out in debt? They lose their finer sense of honour, and they believe that it is not wrong to clear off owing for their house rent or board. They argue that it is not their fault. They have worked three weeks or a month and have received nothing for their work and, therefore, it is not wrong to leave others in debt. We believe that this capitalistic wrong practised on the men is very largely responsible for the evil that exists, and for the men moving about from mine to mine to which you have referred.

2048. Now, what do you say about the colour bar, as it is called?—Well, seeing that the average Kaffir is bred as a slave he has no right to usurp our position as free men, or drive us from these mines—we have a right to keep the colour bar, or the ultimate consequence will be that you will have a few capitalists owning the whole of Johannesburg and having a monopoly, and the riches of this land will be sent to Europe and elsewhere for the benefit of a few shareholders, who don't care a hang whether South Africa sinks or swims. There will be a small class of capitalists and financiers and a huge multitude of Kaffirs working as semi-slaves, but there will be no room here for the white man, and, as I said before, of what good will the country then be as a part of the British Empire? I hold that the Kaffir should be allowed to get free, but in the *interim*, as he is here only as a semi-slave, I have a right to fight him and to oust him just as the Australians ousted the Chinamen and the Kanakas, and as Great Britain will ultimately oust the Chinamen and others from their ships at sea. If we are always going to lie down to the ethics of capitalism, then the white race will have no show in this country. The capitalistic class here are quite ready to go to any extreme in order to save a half-crown in working costs, quite indifferent what results may follow or what effect their policy may have on the future welfare of this country. What we argue is, that if the Jupiter, or any other mine, cannot pay reasonable profits with the machinery at their hands, and under reasonable economic conditions of industrial organisation, then they should close

down, and they should not be allowed to go on, and they will have to wait till such times as they can make it payable. Otherwise, if this doctrine of reducing working costs, quite independent of any other consideration, is accepted, who is going to define the limit? Who is going to say where it shall cease? We maintain that reasonable conditions of working shall be established, and any mine which wants to work must comply with those conditions, or else close down until it can do so, and not seek to have its conditions bolstered up by the present system of semi-slavery which exists. For my own part, I agree with Judge Higgins, that no mine or factory or other industry which cannot pay a white man a reasonable wage and work under reasonable industrial conditions should be allowed to work at all. There may, no doubt, be millions of tons of ore, of a value of two pennyweights, which could be worked if only you could get Kaffirs at a shilling a day, and there may be millions more, of a value of one pennyweight, which might be worked if only you could reduce a Kaffir's wages to sixpence, but what use is that if it is only for the benefit of the Kaffirs and a few wealthy capitalists? What use is it for the country? What good is it for the Empire? What good is it for the white race? What use will there be for shops, for theatres, for churches, or for any other civilised institutions. If you agree that the white man and the black man shall be equal underground, I say all right, get the black man and pay him an equal wage. But they do not agree to that. If the coloured man has hopes and aspirations the same as my own, I say he has a right to be free and earn a wage commensurate as a man.

2049. Now have you any view as to machines as against hammers?—Well, generally, the average hammerman can run machines, and the majority of miners now underground do not in any way stick to the one position. I have been underground since 1882, and what I think is this, that if I can earn 25*s.* a day on machines, I would rather do that than work for 1*l.* a day on hammers; provided, however, that the hammer work is the healthier occupation, then I would take hammers over, but I am not quite sure in saying that either one or other occupations is the more healthy, judging from the men whom I know who belonged to my Society and who have died within the last few years. It seems to me that as far as phthisis is concerned, both hammermen and machine men are equally liable to contract the disease, and they die very largely in the same ratio. But I would rather run a hammer stope than a machine stope, owing to less friction and to higher efficiency with the human machine. But where boys are not to be found and small or large machines come into operation, then we, as miners, are satisfied with what we have to do, to keep within the terms of the Mining Regulations.

2050. **(Sir Jan Langerman.)** At the beginning, you said that you would favour holding the black man to his sphere?—Yes.

2051. Well, what is his sphere? What part of the work would you allocate to him and what part to the white man?—I would allocate to the white man, under present economic conditions, that sphere of work which his mental capacity allows him to do more efficiently than the black man. But to give the Kaffir who has been underground only two or three months a perpendicular rise, where the poor devil doesn't know how to rig up his machine, and drops down with the machine, as I have often seen it done, I say they are simply using that Kaffir as a human machine and doing him a great deal of injury, because the fact is that the Kaffir is not aware of the dangerous position that he is in. Say, for instance, a Kaffir is in a rise, he should be there all the time, and the white man should not leave him, he should be there along with the Kaffir. If you have a rise with two machines in it, that is the place for the white man to be always, and he must not leave the Kaffir to his own devices and inclinations at all. The fact is, that the managers and others treat the Kaffir as a slave, and the poor devil often loses his life, because he does not know the dangers connected with the work he is put to do.

2052. So that you would not have natives in rises and winzes?—Not without a white man.

2053. And what about stopes?—He should not run more than two machines in the stope.

2054. With hammers?—He can run 25 or 30 boys easily. We agree to 25 boys.

2055. That is as far as you would go?—Yes, under the circumstances, until we can gradually eliminate the black man and the mines can employ white labour.

2056. Do you think the white man could take the place of the Kaffir in the stope, doing the same work, hand drilling, and so on?—Well, if economic conditions were such that, say, four white men in a stope could break as much as 25 Kaffirs with a white man as supervisor, I would allow them to have a trial. But they won't allow that here, because, to be frank with you, I believe they are afraid of a political landslide, such as we had the other day, and they at all times keep the white man back. I can give you an instance of what I mean. I have in mind a case where four white men took a stope on a mine on the East Rand without Kaffirs, and they told me at the expiration of two months that they had done fairly well—they had averaged about 25*s.* a day in this stope without any Kaffirs; but some influence was brought to bear on the mine manager, and he told them it would not do, that they were dearer than Kaffirs, and these men at the time did not believe they were dearer, but they had to go.

2057. Then you have no objection to have the black man there to-day under present economic conditions?—No.

2058. In view of the value of our mines, do you think we would ever arrive at that period where we could employ white men in preference to natives?—Well, there is the Van Ryn Deep, for instance, where within the last three months they have nearly doubled their capital, and in place of being worth 1,250,000*l.*, they are now in the market at nearly 2½ millions.

2059. What is the capital of that mine?—About 1¼ millions. In January the shares were down to about 24*s.* and now they are over 43s. Therefore, it is not really what the mine is worth which enters into it. And on that mine they are asking men to run six or seven machines. Therefore, we, as workers, have no right to enter into their capitalistic ethics at all, because if you buy Van Ryn Deep shares now you still want your ten per cent. on the enhanced value.

2060. You mean that the worker is not concerned with the financial business of the Company at all?—Quite so.

2061. But from the Company's point of view they have a right to work according to their finance?—Yes.

2062. Therefore they have a perfect right to employ cheaper labour if they can do?—Yes.

2063. So it cuts both ways?—Yes.

2064. But what I want to arrive at is this: you are not hard and fast in favour of eliminating the black men and putting white men in their place if it cannot be done economically?—It is purely a question of economics. If we can oust them as we have ousted the Kanakas from Australia, we have a right to do so.

2065. But surely that is not on all fours with the case here. Here the Kaffir belongs to the country. They were justified in turning out the Chinamen and Kanakas from Australia if they wished to do so, but here it is different: this is the Kaffir's country and you cannot turn him out?—The Kaffir has not been a hundred years here, and he turned out those ahead of him.

2066. Then would you fight and exterminate the Kaffir?—No, I would drive them down to where they came from.

2067. You cannot simply say "vanish" and he vanishes. You must provide for him?—No, you can do the same as they did in Basutoland, send them into their own territory.

2068. So you think the policy should be to import white people and in the meantime to allow the assets of our country to lie waste?—No, allow the Kaffir to go on the land.

2069. And drive the Boers away?—No. Let the Kaffir go down into Natal and elsewhere, and make the Dutchmen who hold the land cut it up and allow the emigrant from oversea to come here. If the land laws in this country are such that the landowners are able to hold up the land for a big rise awaiting the time that emigrants come here and take up land, you should alter them. In the *interim* we want to drive the Kaffirs out if we can—those who are here we will

allow to stay here—but those who do not belong here have no right to come and settle down.

2070. You say you are a Socialist: you mean only so far as white people are concerned?—No, I am a Socialist as far as all the workers in the whole globe are concerned. I believe that every inhabitant of this globe shall have the opportunity to earn his livelihood, but I do not believe that a certain section shall be used as semi-slaves for the purpose of keeping others down.

2071. The Kaffir is also a worker?—Well, as we say, he robbed the land from the Hottentot, and he should be allowed to stay on the land. What we say is that he should not be brought here to compete with the white man on the economic conditions at present existing.

2072. But you robbed him of the land?—Well, then, it is thieving all round, I suppose.

2073. You want to keep the black a slave?—No, you do.

2074. The people of this country want to raise the black so that he becomes a useful worker?—The capitalist seeks the black man to come into competition with the white man at half-a-crown a day where we ask a sovereign: is that what you call raising him?

2075. Are you in favour of nationalising the mines?—Yes, if the State did not have to take over a lot of watered capital. I say by all means nationalise the coal mines. About the gold mines, well, it is not worth while to enter into the matter, because a hundred years hence I believe we will be laughed at for going down into the bowels of the earth five or six thousand feet to dig out gold of four or five pennyweights from one ton of quartz. Of course, under capitalism, we are helpless, but as a Socialist I do not agree with it. But in regard to the coal mines, iron and copper mines, I say "yes"—nationalise them. And also the gold mines if it is absolutely essential. But I do not agree that it is. I believe that we can find some other means of exchange that would be far more preferable.

2076. **(Sir Alfred Bateman.)** You think you can do without gold?—Yes.

2077. And would you go back to barter?—No. Go back to a system of notes based on the wealth of the nation at large, and that could be agreed to by the nations of the world on the same basis as gold to-day.

2078. You would not be afraid of the value of these notes going down to nothing, practically, as they did after the French Revolution?—No, not if it was arranged on a sound financial basis. In the United States after the Civil War their green-backs went down 50 per cent., but they came back again.

2079. Therefore you think it would be possible to do without gold?—Yes, but not just at present, because the capitalists all over the world evidently find it to their interests to keep things as they are.

2080. As regards drink, I gather you are not in favour of local option, are you; you would not keep the white man from having a drink?—Well, I was never raised in a dry State in America and cannot say from experience how it works. But speaking for myself, I would say that the drink question has very little to do with the larger economic questions at stake.

2081. Not here—not among the whites?—Yes.

2082. Don't they waste a great deal in drink?—No, not if the average spent by the white man on drink is taken into consideration. And I think if they drank less and saved the money, in two or three years' time their wages would go down half-a-crown a day.

2083. It would lower the general standard, both as regards food and drink?—Yes.

2084. But surely you do not approve of the drinking that goes on between Saturday and Monday, when the men lay in cases of whisky in their rooms and drink till it is finished and they are incapable of following their duties?—Well, I am a temperance man myself, and I often argue that our men would be far healthier if they spent less in drink. But owing to the fact that they have no homes here, and are afraid to have their wives here, and the arduous nature of their work, they like to meet their fellow men in hotels and clubs, and if the capitalists cannot offer anything else they will find their conviviality in such places.

2085. Why should they not bring their wives here?—Because they are afraid they would be unable to keep them and to enjoy that standard of life which they have a right to expect.

2086. Even on 25*s.* a day?—Well, if they had that, and if they were sure of a daily wage of that amount, they could live, and provided health conditions were better. But take the five or six years they can expect to live now. I can see hardly anybody living that worked with me fifteen years ago—not one that I know of. What is the use of that? What is the use of having a home and then in three or four years you are dead and the wife and family left to the mercy of the country.

2087. Is it not now very much improved in regard to phthisis?—No, I do not think it will be for a few years yet.

2088. It will in time?—I do not know.

2089. Do you approve of the Labour Exchanges?—It would be a good thing to have a genuine Labour Exchange, but the trouble with them is that they generally resolve into scab shops, and when one portion of the workers go on strike they turn to the Labour Exchanges, just like the Premier Mine did the other day—"Send us 400 men."

2090. In England, if there is a strike or lock-out the men are advised by the Labour Exchanges not to go to the particular place?—Well, I read the "Labour Leader" and I have read information which differs from that very largely. But they are not so open there. One of the features of South Africa is that they get these things done openly and without shame. Capitalistic ethics are so pronounced that they will tell you frankly what they mean.

2091. You think capitalistic England is more cunning?—Yes.

2092. **(Mr. Lorimer.)** I gather your position is this, that the supervisorships and best-paid jobs should be reserved for white men, and coloured men should only do the harder and more toilsome work?—Yes.

2093. And do you say that apart altogether from whatever intelligence or knowledge the coloured man possesses or acquires?—Not that he should be handicapped. We do not, as workers, at any time state that the coloured man should not be able to earn all that his intellect allows him to, but what we argue is this, that the Kaffir, as distinguished from the coloured man, has no right to be brought here as a semi-slave at half-a-crown a day and then allowed to compete with us when he is under the law. At no time do we say the coloured man should not be allowed to earn all he can, but we say that if the Kaffir competes with us for a lower standard, we are going to fight and drive him out if we can.

2094. What I want to be at is this: if you are shown that the coloured man is able to do a white man's work, would you allow him to do it?—Will you tell me if you mean a native or coloured man?

2095. Any man?—There is a vast deal of difference.

2096. Do you say you would allow some possibility of advance to a coloured man which you would not allow to a black man?—I do not think you can discuss individual cases. One swallow does not make a summer and one intellectual black man does not justify the principle of competition between black and white which the capitalist is seeking to introduce.

2097. If the coloured man is able to do a white man's work equally well would you let him do it?—Yes, if he works at the same prices as myself.

2098. Then you would put him in a position of responsibility just as you would a white man?—Yes, for equal wages.

2099. According to the Report of the Economic Commission the wages paid on the Rand are the highest in the world?—Yes.

2100. It is only natural and proper that you should all want to get the highest wages you can?—Yes.

2101. But will you tell me what you regard as the justification for the wages here being the highest in the world?—In the first place it is because everything here is twice as dear as it is anywhere else. The next highest place in the world I was raised in—that is the town of Butte, Montana, where the largest

copper mines in the world are, there we got 3½ dollars a day. House rent was only about half what it is here. A man could have board and lodging for a dollar a day. Now here, where the average wage is only a third over that of Butte, the cost of living is twice as much. The fact is that the railways, landowners, and oversea speculators have made everything so high that the white man cannot live for less than a pound a day, but if things were as cheap as in Butte, Montana, we could probably live on 16*s.* 8*d.* a day.

2102. You justify the high wages because of the high costs?—Yes.

2103. Is that not cause and effect?—No, it is because the land laws here are made in the interests of speculators.

2104. But if you get very high wages, it necessarily makes everything that is produced in that area very high also?—Well the fact that the average wage here is not 1*l.* a day shows that the whole of the workers do not receive that amount. If you take into account the coloured man and the Kaffir here it is not fair to say that we have the highest wages in the world. The farmers have their knives into us, the railways have their knives into us, the Cape, and elsewhere, and we are made to pay very dearly for all the necessaries of life and all our requirements in the way of house rent, food, and clothing.

2105. Do you regard the high profits made on the Rand as a justification for the high wages you claim?—Yes, and the shortness of men's lives.

2106. Then, obviously, if there were a falling off in the profits of the Rand you would regard that as a justification for a reduction of wages?—That would depend largely on whether the watered stock would bear the falling off. We have no right to pay for watered stock to the tune of 20,000,000*l.* for the benefit of people oversea and accept that as a falling off in profits.

2107. One remark you made impressed me very much. The Economic Commission's Report states that the wages are the highest in the world, and that the cost of living is relatively not so great, and yet you say that these men who obtain these very high wages and have the benefit of a relatively moderate cost of living do not save anything?—Very little. I cannot select ten out of 500 who died out of my Society worth 500*l.*

2108. You say that is very common?—Yes.

2109. It is an awkward state of things; what is the consumption of drink per head of the population here?—I presume it would be fairly high on the white man, but I do not believe it is as high as in the case of the people who go in and out of the Carlton Hotel. It may be high according to the average knowledge of the capitalist, but I can assure you they drink ten times as much as we do.

2110. I think you also said your ideal here would be something like that of Australia?—Yes.

2111. Of course, you must recognise the absolute difference between the two sets of conditions. Australia has tried to keep out the coloured man?—Yes.

2112. But you have them here already in the proportion of ten to one. How can you think of trying to create any analogy between the two?—By keeping the black man to Zululand, and Basutoland, and up country where he comes from.

2113. You would turn them out of the Union altogether?—Very largely.

Mr. Wilfrid Wybergh, called and examined.

2114. **(Chairman.)** I gather you will speak on the following subjects: first, black and white labour on mines; secondly, the effect of phthisis on the mining industry; and thirdly, the relation of the mining industry to the country as a whole?—Yes.

2115. Will you kindly speak on those points?—I would prefer to begin with the last item first. The point which impresses me particularly is this, that in reality there are two fundamentally different points of view in regard to the relation of the Colonies to one another or of the Empire to any Colony, and I think those two points of view are incompatible with one another. The one regards this country as a field for investment of capital, and the other is as a field for human beings. Of course, I propose to speak more from the latter point of view, but I want to emphasise this point before the Commission, that it is the former point of view that most of our industrialists have always taken. The point of view is exemplified in those people who talk about this country and others and make use of such phrases as "The trade follows the flag," "Opening of new markets," "The native is a great asset to South Africa," and so on. Well, that is quite a common point of view, and I want to make it quite clear at the beginning that I am not taking that point of view, but the opposite one. The actual effect of the first point of view was made very clear a few years ago in a conversation which I had with Lord Harris, when we were discussing the question of land settlement, and everybody was in favour of it in those days. I pointed out to him the availability of a large portion of this country for settlement, and to my surprise he answered me, rather contemptuously in a way: "Oh, you mean closer settlement and that sort of thing. Of course, I was referring to South Africa as a field for the investment of capital in agriculture." Now that sufficiently indicates the difference between the two points of view. From my point of view the only thing that is really important to a Colony, and the only direction in which any industry is important to a Colony, is simply this, how far it provides employment and homes for the people. The question of how far the Colonies are a field for the investment of capital is, I think, a matter of quite minor consideration. I speak specially, of course, in regard to the mining industry. I look upon the mining industry's principal utility as depending upon how far it is going to be the means of attracting population and providing homes for the people and work for the people. Of course, the attraction of population to the country is, to my mind, the main function of the mining industry: it is a blessing to the country in so far as it attracts a white population, and that being so, I think that one of the most important questions that I can touch upon is the question of the relation of the Kaffir and the white man to the mining population. Now that attraction of population is in many ways incompatible with the ideal of the mining industry as a field for investment. The two interests are often quite divergent. The object of those who look upon the mining industry as a field for investment of capital must be, of course, to get the gold out of it at a minimum of cost and with a minimum number of employees and in the shortest possible period. It would be actually to their interest, if it could be done, to scoop out all the gold and to empty the mines in a week. That is obvious from the financial point of view—the saving of interest and the various charges. But it is equally obvious from the point of view of South Africa that such a course would be disastrous. That, again, is an illustration of those totally divergent points of view. We South Africans, such as I, of 23 years' standing, certainly deprecate the view that we are merely a convenience to the investor or even that our mines are anything but our own asset, whoever the private owners of the shares may be. Now the position is, of course, unfortunately, at the present time that the mining industry is not owned by the people of South Africa. The mining industry is owned almost exclusively by foreign investors, and the last shred of even nominal ownership was taken away from the people of South Africa a few years ago when the Legislature, as the culmination of a long agitation on the part of the shareholders, finally decided that the State did not even remain the nominal owner of the minerals, but that the actual ownership was transferred. Now that was the culmination of a long period of agitation and wire-pulling and so on, and it only illustrates how entirely the ownership of the mining industry has passed out of the hands of South Africa. On the contrary, the actual mining industry itself—in so far as by the mining industry is meant the people who

work the mines—has, in the course of the twenty years I have known South Africa, changed from being a mere floating population to practically a settled population. Practically half the men working the mines to-day are South African-born, and of the remainder by far the larger proportion are permanently settled in this country. Now if the mines are to be used and worked for the purpose of attracting a white population to this country, as I think they should be, it is necessary to revise entirely the present methods and the present points of view. From my point of view it is not a question of which pays the best dividends, but which is the best for the country, and the question in regard to the use of the white man as a miner is not whether it is desirable, but how far it is possible. By "possible" I mean without making an actual loss—by winning the gold at a less cost than the value of the gold when won. I do not feel that we are under any great obligations to consider the interests of capital, except in so far as it is actual cash brought from abroad and put into these mines.

2116. How do you propose to get further capital under this régime?—In the past the great bulk of the capital invested in these mines has come out of the mines themselves, and I think it will continue to do so. It has been re-invested. There is comparatively a small amount of actual cash capital from outside which was brought in in the first place. That is the view which I wish to put before the Commission. Therefore, I say we are not very much concerned with the price of shares, and we are not bound to consider whether a man makes a good speculation or not. It is not nearly so impossible to provide our own mining capital out of the mines as some people seem to imagine, and as a matter of fact, although twenty years ago the whole place seemed to hinge upon the share market, to-day no one ever cares about the share market, and thousands of people in Johannesburg live and pass their whole existence and die without knowing that there is such a thing as a Stock Exchange. When I remember the early days, nothing else was talked about. Furthermore, whereas twenty years ago the town of Johannesburg, and the whole country, to a large extent, was directly dependent upon the mining industry, I do not think it is so any longer. We have become, in regard to South Africa, very much as Sydney and Melbourne are to Australia. We were started by the mining industry, but we are no longer merely a mining place: we are a metropolis. Now the way to attract population is certainly to increase the ratio of white men to coloured men—not merely to increase the number of white men: that is of very little use to the future of the country. It is no good bringing in 1,000 white men if, at the same time, we have to import 10 thousand or 20 thousand Kaffirs from outside. We are not getting any nearer to making it a white man's country. Therefore, what is of great importance is not the number of people engaged in the industry, but the ratio of white to black. That is how I judge the national progress of the industry. Furthermore, unless we can use our industry for attracting a larger white population, then the quicker the mines are worked out the quicker our assets will be dissipated, and we are getting nothing for it. The only thing which is worth while getting for our gold is: men. That is fundamental. Now the white man is not as welcome here as the Kaffir, for many reasons—for one thing because he is dearer, and another thing because he is more independent—and in the past we have been hitherto actually basing our entire industry upon Kaffir labour. That was all very well so long as there were very few white people settled in the country, and practically no children growing up to require work. But the position is now in Johannesburg itself, for instance, that we are discharging every year 1,000 children from school, and because the Kaffirs do all the work those thousands of children—and many other thousands all over the country—have no future before them. So it is of paramount importance for the future development of the race that we should alter the whole system. Instead of attracting population we are losing population. We are attracting the black population here. They are coming up from Natal and from Cape Colony and from Portuguese East Africa, and all over the Union, and we are attracting also, of course, a certain number of white people, but they do not actually go into the mines. As a whole, South Africa is losing white population, and that process will go on until such time as we base our industry on white unskilled labour. It is not enough to have white skilled labour, for the skilled labour cannot at any time form more than a small proportion of the whole. I do not know whether the Commission is at all interested in the details of how this pressure of black against white actually comes about, but I could deal with that.

2117. No, I do not think so.—Well, as to the possibility of using more white labour, there is a greater possibility now than there has ever been in the past, largely owing to this great tendency towards amalgamation. Now amalgamation of the different mines has been looked upon by many people in the past with some fear, but to me it seems to be perfectly natural and inevitable, and I welcome it, because I see the chance of its leading somewhere in the direction we ought to go. I welcome amalgamation for this reason, because it tends to make the rich mines pay for the poor mines. The great argument against white labour in the past has been,—What is to happen to the poorer mines? Well, I say again—perhaps somewhat brutally—oh, never mind them; they will be amalgamated. The history of the industry has always shown that when a mine did not pay by itself it amalgamated with a richer mine, and this tendency would continue. So I look forward to amalgamation with some satisfaction, and for another reason—because I am perfectly certain that we cannot allow an *imperium in imperio* to grow up, and when the time comes that all the mines are amalgamated it will bring State ownership into the region of practical politics. If you take the industry as a whole and recognise the fact that they are paying eight millions in dividends every year, that leaves a very large margin for a possible increase of expenses owing to the employment of white men, without any necessity to shut down a single stamp, if the process of amalgamation becomes complete. I do not know whether it is desirable to say anything about the position of the native in the matter?

2118. Yes.—Well, this white policy is not a selfish policy simply for the benefit of the white man, without care at all for the Kaffir. As a matter of fact, the Kaffir in this part of South Africa is as much a foreigner almost as we are. He does not belong here; he belongs to the North and East, historically. The Transvaal was almost empty of Kaffirs when the white men came in: so was the Free State and Natal. The Kaffir problem is one we have deliberately brought upon ourselves by our efforts to import cheap labour, and if we cease those efforts the problem will diminish to a very great extent. And I feel that it is not in the interests of the Kaffir, any more than it is in the interests of the white men, that the two races should be mixed. I believe in Shepstone's policy of segregation. I was an advocate of it long before I knew that Shepstone was in favour of it, and now I believe that Lord Milner has come over to the same idea. It is in the interests of the Kaffir to keep him away from the Rand, and it is in the interests of the white race to make Kaffir labourers as difficult to get and as scarce, and consequently as expensive, as possible. Only in that way can we prevent the standard of the white labourer being reduced towards the Kaffir's standard, and only in that way can we prevent the Kaffir from being corrupted. I do not claim to be a native expert, but I may say that I habitually spend my holidays in travelling about the country, and I see a good deal of the natives and talk to them in their kraals, and I find everywhere in my experience that the one thing the natives are anxious for is to be left alone and to avoid the necessity of coming to work on the Rand. The chiefs say, "Let us keep our young men; we do not want them going up there to be corrupted. We have no enmity against the white man, but we want to be separate." Of course, they say that the main thing towards that object is, first of all, a proper system of land division and, secondly and all important, that they should be allowed, instead of paying their taxes in cash—which has to be earned here on the mines—to pay their taxes in kind, in agricultural produce, which they could produce on their own ground, and thereby avoid the necessity of coming here at all. That is the point of view that has been put to me by Kaffir chiefs and by the friends

of Kaffirs who have travelled amongst them and who know more about them than I do, and I think it is a very sound point of view.

2119. **(Sir Alfred Bateman.)** I think you said that the State had nothing to do with the mines now as owner?—No.

2120. But surely there is a first charge—a tax—on the mines?—There is the profits tax imposed by the State, but that is only a tax in the ordinary way, and claim licences, which are also the ordinary form of tax. But the State ownership—the ultimate ownership of the minerals that formerly vested in the State—was a few years ago taken away from the State and granted to the owners of the soil.

2121. But surely the revenue of the Union gets an immense lot of money directly and indirectly out of the mines?—Undoubtedly; they are subject to taxation.

2122. It is nearly half the revenue, is it not?—It is impossible to say what the amount is directly and indirectly. One can estimate the direct amount, but the indirect amount is a matter of opinion—how far it is due to the mines and otherwise.

2123. I think I understood you to say that a great deal of the capital in the mines invested in recent years has been in the form of profits turned into capital?—Yes.

2124. And that concerns South Africa alone and does not concern the capitalist in England?—I do not wish to be thought to say that the value of shares is no concern of ours, but I say we are primarily not so much concerned with the Stock Exchange operations as we are with the question of the cash brought into the country.

2125. But for the good of the Union generally you will, for a long time, will you not, require capital from outside?—It all depends on the price we have to pay for it. If we can get capital cheap, well and good, but if they ask too big a price we say no.

2126. Then you do not contemplate any progress?—Yes; but after all, the principal capital of the country is the wealth in the country and the people in the country before everything.

2127. But does not that wealth want developing?—Yes.

2128. You want roads and railways and other public works?—Yes.

2129. Where is the money to come from for those objects?—I quite agree that the State will require capital.* In my previous remarks I was referring to capital for the mining industry.

2130. **(Sir Jan Langerman.)** You said that a few years ago the ownership of the minerals was transferred from the State to the owner of the land by law. But surely that is not correct?—I think so.

2131. In what way?—If you remember the old law, as it was when I was Commissioner of Mines, the old law was that the ownership and control . . . .

2132. Before that law which you refer to, which was passed when we were both in the same Parliament, the owner had the right to 10 per cent. of his farm—to mark that off in minerals on proclamation. Is not that so?—I think the mynpacht was 10 per cent.

2133. And besides that he had his werf?—Yes, that was a thing reserved.

2134. And he had his owner's claims?—Yes.

2135. The law you spoke of consolidated those three rights into one right. That is all the change that took place in the ownership of the minerals?—I think you are wrong. It did that, but, in addition, the actual wording in one of the principal clauses was altered in such a manner that the words "ownership of the minerals" disappeared.

2136–46. I think you are wrong?—I do not think so.

* *Witness's Note.*—To this I would like to add that the credit of the State depends far more upon the number of the white population than upon the price of mining shares. Further, that the credit of the State must obviously stand higher if the minerals are retained as an asset of the State, and exploited for the common benefit, instead of being handed over to private capitalists.

Johannesburg, Friday, 4th April, 1914.

Mr. Howard Pim, B.A., Chartered Accountant, called and examined.

The following statement by the witness was read:—

1. The population of South Africa is about 7½ millions; the natives and other non-whites outnumbering the whites by five to one. Their share of the work of the country is also increasing daily. They are drawing a rate of wages which is approximately equal to one-tenth that of the white workmen.

Included in the above total is a population of 620,000 coloured people—half-castes—who in certain parts of the Cape Colony—Capetown especially—fill to a certain extent the gap between the two, and in this gap the Natal population of 140,000 Indians may also be placed, not on the ground that they earn a much higher rate of wages than the native, but because they work continuously, which the native does not. Owing to the native working only for short periods at a time, the wages he actually receives are far below the figure I have mentioned. The gap between these two sections of the community is therefore very great indeed.

A white community is closely knit together, and every section of it interdependent. The wants of the South African native are so few and small, and there is so little to be done for him, that the position in South Africa is very different, and while the white community finds itself in the position of requiring much native assistance to carry on its work the native community is independent.

One result of this is that even the low rates of wages above-mentioned paid to the native are out of all proportion to their wants, and if he is content to live at the old tribal level he practically need never work at all except to obtain the money to establish himself. More and more, however, natives are beginning to work continuously, or, at any rate, for some months during every year, and their wants for clothing, &c., are certainly increasing.

A result of this irregular work has always been that few of them become skilled. There is, however, to-day an increasing number who are acquiring a certain amount of skill, equal at any rate to that possessed by the less efficient whites. This is specially the case on mines and works.

The poor white appears to me another result of the gap between these two social strata. If at any time there is no employment for a white man in the ranks of the white community, he has nothing to fall back upon, and falls right down to the Kaffir level, or even below it, because he is probably destitute, while the Kaffir has his share of the tribal lands and other assets to fall back upon.

In Mr. Bryce's book on the American Commonwealth, the poor white in the Southern States is spoken of as a result of slavery. In view of the South African experience, it appears to me that no other cause for the existence of the poor white than this great gap in the standard of living of the two sections of the community need be adduced. This makes the problem an extremely serious one, for it means that they will continue to be produced whatever efforts are made to prevent it, as long as this great gap exists in our social system. This gap cannot be closed from above, and to close it from below means a transformation of the habits of the native races which can only come about after some very lengthy period, and then only if the native races are capable of such development.

Returning to the general question, I would submit the importance of bearing in mind, in considering all South African questions, this unique fact of our social life.

2. The native is genuinely anxious to obtain education, but it cannot be said that any systematic attempt has been made to give it to him. A large amount of excellent educational work has been done by missionary bodies, but to educate our 5½ millions of natives requires an adequate supply of native teachers. This is the only way in which any far-reaching results can be obtained, for in this country we cannot obtain sufficient white teachers to staff our white schools. It is clear that to provide these native teachers provision for secondary education and normal colleges are essential. At the present time there is a scheme for a native college in the Alice district of the Cape Colony, but, so far, the only funds provided have been supplied by the natives themselves and by individual well-wishers among the whites. To start industrial schools without Government support is practically impossible, owing to the cost of the land and equipment required.

3. A certain number of skilled native workmen are produced by the existing missionary schools, and a section of the white population consider them a serious menace. The Economic Commission, as will be seen from section 57 of their Report, do not agree with this view.

The one form of native education extensive enough to affect the country generally is the education which the native worker is obtaining on the mines. Here, in a number of cases, he appears to have reached a level equal to, if not above, that of the less competent whites. The benefits of this skill and knowledge he is prevented from gaining by the Mining Regulations, which stipulate that mine work in many respects has to be carried out by whites. This colour bar he resents to-day, and is certain to resent it more and more as time goes on.

It, therefore, appears to me that if our South African native population of industrial workers is to remain contented, concessions in this respect will have to be made, and it would be wise to make them before discontent arise, not merely for economic reasons, but also for the wider reasons which a liberal native policy must take into consideration.

That there are certain forms of skilled work which the native is perfectly capable of performing is clear from the evidence put before the Economic Commission.

4. The question of apprentices is dealt with in paragraphs 44 to 46 of the Economic Commission's Report, the most important fact to be borne in mind being that in a white community the only way of filling up gaps in the ranks of the skilled trades is by taking in white boys as apprentices. From the employer's standpoint, therefore, there is nothing like the same inducement for him to obtain apprentices and treat them properly as there is in a white community, the Kaffir being available to fill any gaps which arise. From the apprentice's point of view, also, the inducement to complete his apprenticeship and become a really skilled tradesman is also reduced, for a comparatively little skill will enable him to earn higher wages as a supervisor of Kaffir labour than his employer can possibly afford to pay him as an apprentice

It appears doubtful, therefore, if South Africa can ever become a nursery for really skilled artisans, and probable that where such skill is required it will be imported from oversea. This has been the case hitherto, and, incidentally, it will mean that the wages for skilled tradesmen in South Africa will approximate to the figure required to attract the skilled tradesman from oversea.

The great majority of appointments for whites open in South Africa are connected with the supervision of native labour, and this particular form of ability is the one which most easily finds employment and at the highest wage. Naturally, it is more often found among whites born in South Africa, who are accustomed to deal with natives, than among immigrants.

However useful trade schools may be, the Economic Commission also came to the conclusion that they cannot fill the void resulting from the conditions which militate against apprenticeship.

2147. **(Chairman.)** Have you anything to add to your statement, Mr. Pim?—Yes, I would like to add a few remarks, pointing out in the first place the irregularity of white employment and some of the causes of it. (*Statement, paragraph* 1.) Of course, owing to the native community being self-contained, and the white not self-contained, the native is quite independent of whatever is done by the white, but the white is not independent of the native. Then I desire to refer to the least efficient white, who is very rapidly reached as we descend in the social scale. There is nothing in this country to correspond to the range of efficient whites which you find in a white community. With reference to the poor whites, the Economic Commission made a suggestion in regard to labour colonies. We placed a great deal of importance in our report on these colonies, in fact, I do not see how the poor-white question can be adequately and systematically tackled in any other way. The difficulty is increased when we remember that in all districts of this country there are a number of people on the land who are barely able to make a living, barely able to subsist; and to-day they are a great drawback and hinder very much the application of laws for the betterment of agriculture—for instance, for the eradication of scab, or dipping for tick diseases, and anything of that sort. The result of any increased burden on these people will at once be to throw them into the ranks of the poor white. That class is quite considerable, and before anything is done you will have to make provision for that class, it seems to me, in some form of industrial colony.

2148. What do you mean by industrial colony?—A labour colony. With regard to the children, we had one very interesting experience. We visited an industrial school at Uitenhage, where there were a number of the children of these poor whites being taught trades, and the stamp of child was excellent. There is nothing the matter with the poor whites. They have simply been thrown down to the Kaffir level, and some below—had nothing to do and nowhere to go—they were absolutely destitute. But, of course, in any such movement where you are dealing with this very serious matter, you have to find the men who are suitable to supervise such schools, and that is not an easy matter. It is such a very special job, that people for this class of work require to be very carefully chosen. I do not see why children trained in these schools should not be just as effective on the average as any other section of the population. It is not as though those people had been poor whites for any length of time, and the stock had very have alluded.

(*Statement, paragraph* 2.) I should like to lay stress on what missionaries have done in native education with considerable success when their resources are taken into account. I think they have done a wonderful work, but, of course, they have been hampered by the want of funds to which I have alluded.

(*Statement, paragraph* 3.) Now, with regard to the importance of our native population remaining contented, I should like to point out the extraordinary docility of this population, and the ease with which they have hitherto been controlled. The best proof of that, I think, that can be given, is the fact that the total white staff in Basutoland, with its population of over 400,000 souls, is barely 30. That includes the Resident Commissioner, his Assistants, and police officers, the Veterinary Surgeon, and the Engineer and his staff. Those are the only whites engaged in the control of Basutoland. And to pass to districts of the Cape Colony, the ordinary provision, as far as whites are concerned, for the supervision of districts containing 40,000 and 50,000 Kaffirs is two or three white policemen. One can imagine what that might easily become if the tribal system was broken down, or if serious discontent broke out in those districts.

Then there is another aspect of the colour bar which I might mention, viz., that it results in lack of competition, which has distinctly had a bad effect on the white standard of work. The fact that the native is prevented from doing many kinds of work removes competition to a large extent from those areas where the colour bar applies, and I should certainly say from what one has come across that the

result has been not in favour of the competence of the white.

With reference to the capacity of the native for skilled labour, I should like to quote some short extracts from evidence given here with reference to the mines, which incidentally raise quite a number of points. "We all feel that Kaffirs here are capable of much better things, but to-day they are not allowed to do those things. The position is that the amount of incentive that you can give to the native doing the work that he is doing is limited, and to get the full efficiency out of the native you will have to open positions to him that are closed to-day. If you were to select natives whom we have on the mines to-day and whom we have in the Cape Colony to-day and give them responsibility, I think it would reduce the accident rate." (These are very responsible witnesses.) "If you continue to keep the natives in a position of perfect irresponsibility as they are to-day and increase the size of the gangs with the whole of the responsibility on the white miner I think safety will be decreased. We have to-day on the reef, I am convinced, a number of natives that are just as good as whites now in all branches of mining. The limit of economy in the supervision of natives has not been reached if you give them responsibility as well, but with the natives restricted as they are now, we have reached the limit. As the native becomes a competent miner he should be treated as such." Another witness: "Some natives have a great deal of experience and are really capable men—infinitely more capable of judging underground conditions than the great majority of white men. The native has a natural sense of danger." I would quote those witnesses on that point.

Then, with reference to this general position of the removal of the colour bar. The Chamber of Mines considers that economy would result from the employment of natives in mining positions they are competent to take, practically on the lines adopted in regard to negro labour on the Panama Canal. The Transvaal Miners' Association, however, strongly opposes any modification of the existing regulations, holding that a step of that kind will enable the mine owners to become increasingly independent of the white miner. There would appear to be force in both these views, but one important factor, the native himself, has not been taken into account sufficiently. Certainly he will claim these positions soonor or later, and one would recommend that all parties should consider the question on its merits and decide on some concessions before agitation commences among the native masses.

There is just one other point I should like to make. A very large part of the labour used here comes from the east coast, and does not come back quite so often as the labour from shorter distances. The effect of that larger proportion is, of course, that a less insistent call has been made on the labour of British South Africa.

2149. You mean Portuguese boys?—Yes, and consequently that labour, owing to the importation of these East Coast boys, has not developed, perhaps, so quickly as it otherwise would have done. So that the position really has been delayed—I mean, the coming of this difficulty of the native insisting on being recognised as a skilled workman has been delayed—by these importations from outside British South Africa. Just three figures in regard to the labour supply on the mines here, which might be of interest: In 1894, the number of natives at work was 41,000, in 1899, 98,000, and the average for 1913 was 214,000.

2150. That is mines, including diamond mines?—Mines and works in the Transvaal—that is the official figure.

2151. Excluding De Beers?—Yes.

2152. **(Mr. Sinclair.)** I only want to ask one question on one subject, because I think the other phases are so fully put by you that further interrogation is unnecessary. But about your suggestion that industrial farms should be set up to deal with the poor white. Do not you think that the best system of attempting to deal with that would be to set up farms on the lines that the Salvation Army has used in different parts of the world?—The most successful experiment of the kind I know of is that of the Dutch Church at Kakamas, on the Orange River.

2153. You can perhaps tell us about it?—I am afraid I cannot give you many particulars, but the essential features of the scheme, I think, are that it is under very strict Church control, and that it is so far away from any other, you might say, habitable part of the country, that it is practically isolated. It is not a very old foundation, and whether there has been any output of workers to other parts of the country or not, I am not aware.

2154. But you knew that the efforts of the Salvation Army have been systematic where farms have been established, and that the schemes have been based upon work and self-help by the unfortunate worker, and the helping hand; and the result, I suggest, has been the most successful social movement in that direction in present times. Now, do not you think that a settlement on those broad lines would do a great deal to give a start to, and set up and help and discipline, the poor white to whom you have referred?—Yes.

2155. You are deeply interested in this question, and I was going to ask whether you had had an opportunity of considering the methods and the system that have been so successfully adopted by the Salvation Army in different parts of the world and with a minimum of expenditure?—No, I have not.

2156. I suggest that the treatment there would seem to be so applicable to the very grave difficulties that face this Union, with the multitudes of poor whites, that it would be profitable to consider it in all its bearings?—I think so, especially, as I think I pointed out in my memorandum, that there is a cause perpetually working which will produce more and more of these poor whites.

2157. In order to set up the poor white, he must have the discipline of work?—Yes.

2158. Work carried on with the supervision that provides the necessary kindness and the necessary directive ability?—Yes.

2159. **(Mr. Tatlow.)** I think you said, did you not, Mr. Pim, that there were not sufficient sons of white workmen willing to become apprentices, and that there was a shortness?—There may be sufficient if they would all agree to learn the trades, but the difficulty is to get them apprenticed, and when you get them to keep them.

2160. Are there sufficient openings for much larger numbers than present themselves?—For highly skilled work, I doubt it. But for the ordinary workman, useful throughout the country, of course, there are many openings.

2161. And it is the reluctance on the part of the boys to any real manual work, is it?—There are so many inducements to take them away; I mean, the fact that they can earn higher wages at other work of a less onerous kind.

2162. You said something about the native working more continuously than he used to do. Do you refer to the native on the mines?—Yes. His period tends to become longer, and more and more he is coming back.

2163. That will make him more efficient?—Undoubtedly. It is as a result of that development that the skilled native is being produced.

2164. I take it you are personally in favour of the removal of restrictions on the native workman, in order to give him a chance with the rest of his fellows?—Looking to the future of the country and the necessity of keeping the native races contented, I think they would have to be removed, because, as you see from the Economic Commission's Report, feeling is getting quite strong. Might I read you an extract from a speech by a native at the recent Transkei General Council? It reads as follows:—

"Councillor Memba moved for the appointment of a Select Committee to consider and report upon native labour questions. He said the present system was attended by grave abuses. Natives objected to being practically sold to the mines at so much a head, like pigs and goats, and disliked the whole system of middlemen and agents. He severely criticised the system of advances, and declared that the Chamber of Commerce and other bodies had acted in the matter without consulting the persons most interested—the natives themselves. By their loyalty during the recent industrial crisis, the natives had earned the right to be consulted in matters which concerned them. Turning to labour conditions on the mines,

he said that natives were prevented from making any advance, and, however skilled they might become, they were kept down as common drill hands. Skilled and educated men were not wanted, and the Council should not hesitate to let the Chamber of Mines know its opinion on the subject. Shareholders of mining companies were losing money by the rejection of skilled native labour, which could be obtained at a third of the cost of European labour."

He then goes on to deal with illicit liquor and miner's phthisis, and another Councillor dwelt on the abuses of the advance system.

2165. **(Mr. Garnett.)** Can you tell us whether the settlement made at Kakamas by the Dutch Church takes whole families on the land and settles them?—Yes.

2166. It puts adult men on the land?—Yes, the whole family.

2167. And tries to lift them out of the position of the poor white?—Yes. I fancy the results, as far as the adults are concerned, however, are not very hopeful.

2168. They are taken in hand too late?—Yes.

2169. But your opinion is that an extension of this system on the lines of the Dutch Church settlement at Kakamas would be of very great social and political importance to the State?—I think it is bound to come.

2170. Then, in your opinion, there is no other means of rescuing these people from a further fall than by taking them in hand and settling them on the land and having the children to take the places of the higher artisans and the positions that the white man holds to-day?—Yes. The railway has helped to a certain extent in this direction, but there is one difficulty about that, and one feature which bears rather particularly on what Mr. Sinclair has said. I will give you an instance. At East London one labourer told me that he could not possibly live as he was only getting 4*s.* a day, and he complained bitterly of the way he was being treated. I asked him a few questions, and gradually I got out of him that he and his family were earning over 1*l.* a day, and yet he came to complain of what he himself had been earning!

2171. **(Chairman.)** Who was this?—One of these workers on the railway. That element of training, of control, is wanting where men are taken from the country and simply thrown into the town. But in the country there are places where there would be no opportunity for the children to earn anything. This instance emphasises the importance of following the line which Mr. Sinclair has indicated.

2172. **(Mr. Garnett.)** I see in your statement you say that even now you cannot obtain a sufficient number of white teachers to start your schools?—That is a very unfortunate thing. I may say that I am Chairman of the Local School Board, and this is the most populous district of the whole Colony. We have 16,000 children in the schools, and the schools are large, some of them containing 600 children. They are within a comparatively small district, so from every point of view it is desirable from the teachers' standpoint. But we are at a loss for teachers, especially for some of the higher grades. And the country districts are, some of them, very badly off indeed.

2173. Is one reason of this shortage the greater attractions of going into other occupations—for instance the attraction of responsible positions in the mines? Does that detract from the number of people who might take it up?—I should rather doubt that. Of course, our Normal Colleges are working very hard, but you must remember that our system has only been working for about ten years, so that later on perhaps our supply will reach more satisfactory figures. Very possibly it has not yet had time to balance, but we can only just fill our requirements, and other Boards cannot fill theirs at all.

2174. **(Sir Alfred Bateman.)** First in regard to the natives. We had evidence yesterday on behalf of the Miners' Association protesting against altering the system of allowing the natives to do their present work, one of the chief grounds being that the Kaffirs were still semi-slaves, and, as such, they had no business to compete with white men. Do you agree with that argument? Are they semi-slaves?—Well, of course, that extract which I read just now is on something the same lines, but the allegation of semi-slavery as made by the Miners' Association is only true in a very forced sense. At the same time the native certainly objects to being practically sold to the mines. The way that arises is this. The native runs up an account with the local storekeeper, who is very often also a native labour agent, and as soon as that account reaches a figure which the storekeeper considers is excessive the native is told he has got to go out to work. That is what they mean by being sold to the mines. Meanwhile, the storekeeper pockets the advance and gets the native's account into a healthy condition, and I suppose the rest of it is paid off when he comes back from the mines. But that system of credit which is given to the natives is another thing which it is extremely difficult to tackle and which has reached enormous dimensions. I should think it was increasing. I cannot say; but it must be, I should say. Some years ago I got some figures on the subject, and in one district of the Cape Colony alone—the Glen Grey District—the advances to natives exceeded 100,000*l.*, and that is in a district of about 50,000 population. Those were Government figures.

2175. Would these natives be under the tribal system?—In Glen Grey District, no. There they have individual tenancy. That was the district to which Mr. Rhodes's Act applied.* The condition of things I allude to also applied all over the country in tribal areas. One exception is Basutoland, where the law gives the trader no right of recovery at all if he gives credit to a native.

2176. Would it be a good thing to extend that law?—I should think it would. It appeals to one as being a commonsense point of view, and no native tribe goes out to work more than the Basuto.

2177. Although he is not compelled by his creditor to go?—No. But there there is more pressure on the land.

2178. Is it a desire for more land that induces him to go out? Is it the want of money?—He wants money to meet his requirements for clothing and so on, and sometimes for food. He cannot buy land in a white area except to a very limited extent, and only in certain districts. Of course, there is another curious feature about that. There are quite a number of farms in the Transvaal which are owned by natives. If a native wants land he makes very little question of the amount of money he pays for it. There is no question of going into the return which he will get. He wants the land and he pays for it.

2179. Does he not bargain?—He does, but he will pay prices which are often not economical prices at all.

2180. Is there generally any land hunger that would increase the natives' wish to work and earn money, or is it only for their needs in food and clothing, &c.?—On account of the limitations of land purchase it is practically useless for him to want to buy land.

2181. That is by law?—Yes.

2182. Of course, those laws might be altered?—Yes. I think if they were altered it might be of advantage in some ways. Of course, you know that a commission is sitting in order to determine the areas which may be set apart for natives. To take the Basutoland case, for example, the natives rather exceed the capacity of the land, partly owing to very indifferent cultivation. Its present population is probably as much as, or more than, the land can carry. I noticed that at the last meeting of the Council, a few days ago, the Resident Commissioner pointed out that he thought that their cattle were also increasing beyond the limit that the land could carry. They balance their wants by working on farms or mines.

2183. And also in regard to this question of employing natives in more responsible positions, that brings you up against the white labour at once?—Yes, both here and, possibly, in other countries.

2184. But you are still in favour of it?—Looking to the future of this country, and having to recognise that it is not like other countries, I think it is the wise course to follow.

2185. Then as regards education, you are not satisfied, are you, with the education of the white?—No.

* Act 25 of 1894.

2186. It is better here than in most places, I suppose. You have it more under control?—Yes. Of course, there are very great difficulties, in country districts especially, owing to the distances which children have to travel. Certainly we should use every possible effort to improve the standard of education of the whites.

2187. Is anything being done to help those children to a useful profession when they leave school?—At the present time we are rather in a state of flux. I do not think that the arrangements that prevail in other countries are suitable here. We have one vocational school, but that is rather intended for children who are able to remain away from work until a reasonable age. We are just starting another to which children will go at a much earlier age, in order to obtain some effectual training before the compulsory age has elapsed. We have also a trades school.

2188. But you do not help them to a choice as to what they are going to do in the school?—Well, there is no official action taken, but the headmasters do all they can.

2189. I do not know whether you have heard of the movement in connection with the Board of Trade at home, started this last year, where they are preparing, with the help of the Labour Exchanges, and the committee of masters and men that sit on these Exchanges, a little handbook dealing with the chief occupations in London, such as building trades, blacksmiths, tinsmiths, and so on, and setting forth in a few pages the wages and the chief prospects of the boy and how long he requires to be apprenticed, and so on?—I have seen them in Edinburgh.

2190. It is quite new in London, but they are to be used in the higher forms of schools as a sort of guide to children. Do you think that anything of that sort would be useful here?—So far we have not got organised to that extent, but I think it is very likely to be useful.

2191. In regard to the industrial schools you spoke of, they are not anything like our workhouse schools, are they? I mean there is no social stigma attached to them?—Of course, in regard to this particular school I spoke of at Uitenhage, it is rather in the nature of a workhouse school, and there are other industrial schools in various parts of the country quite outside our School Board arrangements.

2192. And there are, no doubt, a number of denominational schools?—Yes, a certain number.

2193. Then as regards the people who superintend and manage these schools, you spoke of the advantage of them being born here and possessing a knowledge of the language of the country and local conditions and requirements, and so on? Now would not the public school boy from England have certain advantage in the management of others, from his public school training; also the public school boy here?—I think he has, but then again that applies to a higher standard of supervision than what I am referring to. I was talking more of the ganger class.

2194. But is there much opening here for a public school boy who is used to the management of other boys?—I am afraid not. Of course, you have heard of the "Kindergarten." They were rather senior to those you are now speaking of, and it is extremely to be regretted that so few of them are left in the country to-day. I think I knew them all, and I think they were all men that any country would have been glad to have, and it was very sad to see them going away one by one.

2195. You said that the natives from the East Coast are in very large numbers here?—Yes.

2196. Is that because the Portuguese natives are more efficient than the South African natives?—No. I think if they have any increased efficiency it is due to the fact that they are willing to work for longer periods. They do not change so often. In the olden days if a man came to work for a few months he thereby established himself for life and did not return, but times are changing. The East Coast native has been willing to stay longer on the mines than the others. The statutory period at Kimberley, for instance, for a native in the closed compound is four months. A very usual contract time for an East Coast native is nine months, and in many cases they stay for twelve months.

2197. **(Mr. Lorimer.)** I have made some notes on this most interesting paper of yours, and I would like to ask a few questions for my own enlightenment. You begin by saying that the population of South Africa is about seven-and-a-half millions—do you mean by South Africa the four Provinces of the Union, exclusive of Rhodesia and the territories?—No, I include Rhodesia and the territories—all British South Africa south of the Zambesi.

2198. British South Africa would include Rhodesia and the territories?—Yes.

2199. And you say that of the seven-and-a-half millions the non-whites are to the whites in the relation of five to one?—Yes.

2200. You have also told us this morning that twenty years ago the number of natives at work in the Transvaal was just one-fifth of what it is to-day. I suppose there is no such difference in the other districts of the Union. I mean to say, apart from the mines altogether, the coloured people are not five times as numerous as they were twenty years ago?—No, but at the same time there must have been a considerable increase of workers.

2201. Then, of the 620,000 whom you call half-castes, how are those employed in the Cape Colony; what do they do—house servants?—Yes, and labour on the farms, tradesmen, and artisans.

2202. Are they working on the few mines, like the copper mines?—The asbestos mines, beyond Prieska, are entirely staffed with these men.

2203. Do these half-castes earn any higher wages than the natives?—Yes. Some of them get very nearly the white standard of wages; and then, of course, there is a regular decline down, practically, to the native standard, but even the lowest wage of the coloured man would actually represent more money than the average native receives, because the coloured man would work more continuously.

2204. Then, you say that the white community finds it is in a position to require native assistance to carry on its work; is that the result of custom?—Yes, it first grew up in connection with the diamond mines.

2205. You have a condition of things to some extent analogous to that in Queensland. They carry on work in a climate similar to yours but without coloured labour?—Yes.

2206. This has resulted from the fact that the people are there, and their presence has been taken advantage of by the white people; they have got accustomed to use them and not to do the work themselves?—Yes.

2207. How was that before the mines were opened up?—A certain number of natives worked on the farms, but you see, if the native is prepared to live according to tribal customs, he does not need to do, practically, any work at all.

2208. You would say, I suppose, that relatively to the population there was more white labour employed than there is to-day—I mean to say, that there was more work done by the white people in proportion to the population than there is to-day. The white people did more themselves?—No, I think not.

2209. They have always used as much coloured labour as was available?—Yes. The additional whites as they came in brought more natives out of the territories to work for them.

2210. I rather wanted to get at this, whether the opening of the mines has made any serious difference in the habits of the white people in respect to working?—No.

2211. You also told us that the natives are beginning to work continuously, and that their wants for clothing are increasing?—Yes.

2212. Is this a progressive advance from one period to another; you find steady progress?—Yes.

2213. Then you also told us that this increasing number may acquire a certain amount of skill equal to the least efficient white; does the law prevent that skill being utilised?—May I refer you to the Chamber of Mines evidence before the Economic Commission?

2214. Could you define the poor white? Is he a man who has always been poor—born so of poor white people, or one who has fallen from a better condition?—Very often, of course, he is in the second or third generation, and has gradually been going down.

2215. A shiftless sort of person?—Yes, I daresay you have read Mr. Bryce's book, and you will know the way he speaks of the mean whites in the Southern States of America.

2216. Yes. Do you happen to know if there is any improvement in that class of man, since Mr. Bryce's book was written?—No. The class is certainly there still, but whether they are reduced in numbers or not, I do not know.

2217. You say that this very serious gap should, in the interests of the country, be closed. How would such an attempt to close the gap be regarded by whites as a whole?—I hardly think it is a matter for attempt; it must be a natural development—the native must grow up to it.

2218. But any attempt to remove the colour bar would probably be resented by the trades unions, would it not?—By some trades unions, at any rate. As regards other trades unions, they have already admitted the coloured man to their ranks. So they cannot object to the removal of the colour bar.

2219. Do you think these coloured people really want education?—They are very keen about getting it.

2220. Is there any attempt on their part to get education here when they come—the grown-up men to Johannesburg or elsewhere, or is their desire for education only shown in the native territories?—It is shown everywhere.

2221. And the missionaries do find them willing pupils?—Yes, up to a point.

2222. Of course, we have gathered from your paper and the report of the Economic Commission that you do not regard the education and development of the native races as a menace to the country?—No, certainly not.

2223. Now, in respect to the concessions which you think it would be in the interests of the community to grant to these coloured men, have you thought of their nature and extent?—One could not possibly fix a limit.

2224. Do you mean by that that you would be willing to put them on precisely the same footing as the white population?—No.

2225. That is why I asked whether you had thought of the nature and extent of those concessions. You are not prepared to say?—No.

2226. I suppose it is hardly conceivable that the existing conditions can ever be reversed, and that the coloured people and the white people should be on precisely the same footing, and that if a coloured man was competent he should be allowed to drive a gang of whites underground?—No.

2227. About apprentices; I gather from what you suggest, that one of the difficulties in obtaining apprenticeship is that the lads at a very early age are allowed to take jobs underground as supervisors?—Yes, but it does not apply merely to mining, but to every industry.

2228. That, I suppose, you think is bad? It is not good and cannot be?—No.

2229. Would it help at all if there were a statutory regulation framed fixing the minimum age at which a lad could take a supervisorship?—The Economic Commission asked a number of questions on those lines, and the reply we always received was—what is the use of having an unwilling apprentice?

2230. Of course, he might be unwilling if he had any choice, but if the law prevented him taking such work underground before he reached a certain age he would have to adapt himself to the conditions?—Questions in regard to making certain classes compulsory for those who had recently left our ordinary schools were addressed to a number of teachers, and one of our teachers, for whose opinion I have a great deal of respect, said he did not think that any real benefit would come of it.

2231. What, compulsory?—Continuation classes.

2232. I was over your technical school this morning. There were no students there on account of the holidays, but some of the teachers were there, and I found them all speak very well indeed of the students they have. These young fellows—the students—now attending the classes there will, I suppose, later on become mine managers or something equivalent to that. That, I suppose, is the object of their training—to qualify them for the higher positions in the industry?—Yes.

2233. They have a most admirably equipped metallurgical department, and I was informed that the students are quite enthusiastic about it. I expressly asked whether there were many, or any, who had not worked a year there as students and who went away to positions of supervisors in mines, and they said there were none at all. So the best class of boys are naturally those who want to go through the full course of technical training, and get the ultimate benefit?—You are now dealing with a very picked class.

2234. I think he said they had about 100 students there just now?—Yes.

2235. Well, there is this difficulty about apprenticeship, is there not—on the one hand the employers say they cannot get as many apprentices as they would like, and on the other hand the trades unions limit the number?—Yes.

2236. Has there been any attempt to overcome that difficulty at all?—On the part of the individual trades I think there has. But the number of apprentices required here, owing to the fact that you can use a Kaffir or coloured man, is smaller than in white countries.

2237. Of course, but some day you will have it, that, owing to the industrial development, apart from the mines, you will want the apprentices to be trained to fill the positions which will then be open?—Yes.

2238. And, of course, your technical school is doing a good work just now, although there is only a limited number?—Yes.

2239. There is no regular system of apprenticeship at all?—No.

2240. **(Chairman.)** You are a member of the Liquor Board, are you not?—Yes.

2241. Can you tell the Commission under what regulations bottle licences are granted?—In what way?

2242. What are the restrictions to supplying liquor either to whites or blacks?—They have no right to supply any liquor to coloured people at all. To whites they can sell in the ordinary way.

2243. And they are allowed to sell up to what quantity?—I think up to 11 bottles at a time.

2244. Against cash or credit?—Either.

2245. There is no restriction?—No.

2246. Has the question ever been discussed here?—I am not aware that it has. I do not know if you are thinking of the bearing of that on illicit liquor traffic?

2247. Yes.—Well, these illicit liquor dealers are so well off that, as far as cash is concerned, that would not have any effect at all.

2248. Does not the facility of selling liquor against credit largely increase the illicit traffic?—No, I do not think so. At any rate, the dealer would buy in the same way for cash. In fact I imagine he usually does.

2249. You mean the man actually conveying to the native?—Yes, the man who is one of the intermediaries between the bottle store and the native.

2250. We have heard from certain witnesses that the illicit liquor traffic is increasing; what do you think?—I will put it in this way. I do not think the present law, or the arrangements at present in force, can reduce the amount that is going on. Whether it is increasing or not I could not say.

2251. Could you tell us what the working of the trade is—how it is conducted—this illicit trade?—There are a certain number of people who buy the liquor. They are in the service of certain others who have capital. There are also runners who distribute the liquor.

2252. Who is the large dealer? Is he a firm established in some way?—No, he is not known.

2253. He is a capitalist?—Yes.

2254. With a shop?—No, not as a rule.

2255. What kind of a man?—Apparently nothing at all. The whole thing is underground.

2256. What is his agent nominally?—He might be anything—a canvasser, or anything. Possibly he might be a man who is nominally going out to work on the mines. Of course, they adopt every possible kind of cover.

2257. Let us take the history of the bottle. How is it conveyed from the central store in Johannesburg to the mining compound—what stages does it go through?—From the central store in Johannesburg to a large extent it is taken out to the mines by carts and bicycles.

2258. To where?—Along the mines and at some agreed place it is deposited, probably in a hole in the veldt, or something of that sort. Of course, in addition to that, a large quantity of liquor is manufactured here. I mean, what is purchased from the bottle store does not go straight out. I should like to mention to the Commission one or two instances we have had. In the first place, of course, the Kaffir himself brews spirit. He gets a tin trunk, fills it with potatoes or mealies and golden syrup and then puts water in and buries it in the ground. After about a month it is strong enough to make anybody drunk. To give you an idea of what is sometimes supplied to the Kaffirs, there was a bottle in the possession of the Chief Magistrate here, taken from an illicit seller, containing potato spirit flavoured with chloroform.

2259. You say the present regulations do not conduce to the reduction of this traffic?—They do not enable the traffic to be controlled.

2260. Have you put forward any other proposals or have you in mind any proposals?—No definite proposals at present.

2261. Is any measure practicable which would strike at the root of this traffic?—I would not like to say what is the practical line to follow. Of course, one measure that would go a long way towards it would be the closing of the compounds.

2262. On the Kimberley system?—Yes, but, of course, there are very great difficulties in the way of that.

2263. What difficulties?—Principally vested interests which have grown up all along the mines in regard to these mine stores. But I may say I pointed out some time ago that it did not seem to me that the cost of expropriating these interests need fall very heavily on the community, because if those stores were closed and a similar regulation to that of Kimberley introduced, namely, that the goods had to be sold in the compounds at the ordinary prevailing prices outside, the profits of those stores to which the companies could lay no claim would amount to an enormous sum and would be available to finance any expropriation which might have to be carried out.

2264. I think at Kimberley the practice prevails that all stores sold in the compounds are bought in the town?—Yes. Therefore it would seem that a similar thing might be introduced here.

2265. Have you arrived at any idea of what compensation the stores would receive?—I have not worked it out. It would be very difficult to arrive at any figure by calculation.

2266. Have you formed any opinion on the policy of segregations?—I hardly think it is practicable. No doubt a self-contained white community would be desirable, but the inducement to employ native labour wherever possible, and so fill up gaps, is so great that I doubt if you could introduce segregation, or induce people to carry out such a scheme. And I also doubt whether it would really pay its way. I think I did make a note of that, as a matter of fact.

2267. Perhaps you could hand it in?—Yes, I will think about it in the meantime.*

2268. Have you any idea of the number of poor whites?—No.

2269. Has any census of the poor whites been made?—I cannot say. I have not looked into it.

2270. I understand you to suggest for the native improved technical education—I use the word "technical" as opposed to "literary"; is that so?—Yes, And I think the native himself asks most definitely for industrial education.

2271. Is such education as he is receiving technical or literary, or adequately technical?—No, not adequately technical. The few schools which have technical departments can only turn out a limited number of pupils. And there is the great difficulty there which the Economic Commission points out—that is, the limited field of employment available for the skilled native labourer. Very few whites will employ them except in out-of-the-way places, on the farms, and so on. The amount of employment he can obtain among his own people is also very small.

2272. So there is no good in having technical education for the native unless opportunities are opened for him which do not now exist?—That is so. The technical education which is of value to the native to-day is what he can learn at the bench beside the white tradesman or on the mines. In agriculture, of course, the position is rather curious, because there the native has his own traditional methods, and it is very doubtful whether, as long as this communal system of tenure continues, there would be much use made of training in agriculture. It might help him to grow better crops, but much more certain than trying to grow better crops is to work for the white man for a few months: then the return for his work is certain.

2273. Do you advocate the abolition of the colour bar or its gradual removal upwards?—Its gradual removal upwards, and to keep in touch with native opinion and feeling and watch all development carefully. It has not been carefully watched hitherto.

2274. What has not been carefully watched?—This development of native capacity and feeling.

2275. So your suggestion of a statesmanlike treatment of the question is the gradual removal of the colour bar upwards?—Yes.

2276. **(Sir Alfred Bateman.)** Is the birth-rate of whites in Johannesburg keeping up, so far as you can tell?—We simply cannot provide sufficient school accommodation for the children, but I do not know whether that circumstance can be taken altogether as proof that the birth-rate is keeping up.

2277. **(Mr. Lorimer.)** You said just now that you were in favour of the gradual removal of the colour bar: does that mean industrially?—Yes.

* See Memorandum printed as Appendix VII., p. 110.

Johannesburg, Monday, 6th April, 1914.

Mr. Raymond William Schumacher, Chairman of the Rand Mines, Ltd., called and examined.

2278. **(Chairman.)** You have been good enough to write a memorandum to the Commission on the subject of the mining industry, and the prospects of amalgamation. Might I ask you to read it?

The memorandum was read, and is as follows:—

I gladly comply with the request of the Chairman of the Dominions Royal Commission to prepare a short statement on certain subjects that vitally affect the Witwatersrand. I am Chairman of the Rand Mines, Limited, and also a Director of The Central Mining and Investment Corporation, Limited. These two corporations guide the policy of a large number of gold-mining companies on the Witwatersrand fields. During the year 1913 the gold-mining companies which belong to our group paid in dividends 4,074,096*l.*, equal to 49·7 per cent. of the dividends paid by all the gold mines of the Witwatersrand. During the same period the gold mines that constitute our group crushed 8,444,480 tons, equal to 32·9 per cent. of the total tonnage crushed on the entire fields. I append details.*

I have been asked to make a definite pronouncement on the subject of a general amalgamation of all the Witwatersrand gold-mining companies, which has already been discussed before your Commission. This question was first raised seriously about three

* Not reprinted.

years ago. The chief arguments brought forward in favour of the idea were:—

(1) That the recruiting of native labour in South African territories would be simplified and cheapened.

(*Note.*—At that time various mining groups were competing against each other within the Union of South Africa.)

(2) That the investor would have better security as a shareholder in one great mining concern than as a shareholder in a comparatively small unit where fluctuations and disappointments were more likely to occur.

(3) That during the periods of shortages of native labour, which it was believed would be continuous, chronic, and often severe, all available labour could be used to far greater advantage than it was used then or is used now. In other words, it was indicated that under one big amalgamation scheme the natural policy would be to concentrate labour on mines where reasonable profits could be obtained, and to close down the poor mines where labour was being employed perhaps in large quantities but with little or no profit. In this way no labour would be wasted, the gold output and dividends would be increased considerably, and investment in the Witwatersrand gold industry rendered much more attractive. The poor mines would be worked at some later date when the cost of exploitation would be reduced and the margin of profit greater than to-day.

The idea is certainly an attractive one, and in theory it appears to be almost unassailable.

It was of interest to me to hear Mr. R. N. Kotze, Government Mining Engineer, state to your Commission on the 2nd April, in reply to a question, that he considered the amalgamation of the whole Rand to be certainly in the interests of shareholders; to be an advantage industrially to the country, and to be likely to lead to more contentment among workmen.

The members of our firm gave the matter due consideration when it was first raised, but we at once came to the conclusion that it would be most inadvisable for us to attempt to put the theory into practice. We had only a few years before effected a number of amalgamations of an important and even epoch-making nature, and we were determined to await the results of these amalgamations, about which we were most hopeful, before again allowing everything to be thrown into the melting-pot. The factor which, however, weighed chiefly with us then, as it does now, was that the carrying into effect of one big amalgamation scheme, which might involve the closing down of a large number of poor mines, would create a great upheaval here, the consequences of which it was impossible to foresee.

Leaving on one side the question as to whether it would be possible for the various mining houses to come to terms or whether the shareholders in the companies would be likely to agree, both of which we believe might be possible, we decided that we could not encourage the idea of an amalgamation of the whole of the Rand.

It is well to add here that the first reason quoted in favour of effecting a general amalgamation has fallen away. All the mining groups, with one exception, have for some time combined and formed a joint Native Recruiting Corporation for all native labour within the Union of South Africa.

As long as this Corporation is well managed, we can see no reason why it should not continue its existence, although it was originally formed for only five years.

It must be admitted, also, that the third and most powerful argument quoted, namely, the desirability of wasting no native labour on poor mines, and of concentrating all on the richer ones, is likely to become weakened as greater efficiency is obtained from the natives, and there is no doubt that greater efficiency will be obtained. The argument rests, as I have explained, on an assumed perpetual shortage of native labour; but, obviously, if the efficiency of the labour is improved the shortage, *ipso facto*, is reduced unless other factors are introduced.

In connection with this point I append a quotation from the speech made by Mr. R. C. Warriner at the Annual Meeting of the Association of Mine Managers on the 21st February, 1913,* in which he indicates that at that date a saving of 30,700 boys might have been effected were machine drills being used universally and exclusively, even with a low average duty, instead of hammer boys. These figures apply approximately also to-day.

Allowing for the fact that it may be impossible to use machine drills to advantage in a few mines, it is clear that the further introduction of machine drills, and notably small machine drills, is bound to effect very appreciable savings in the numbers of natives required. The figure quoted above indicates that a general introduction of machine drills would alone make up for something like half the total deficiency of native labour of the entire fields. To-day, machine drills are being used almost exclusively in many mines, and the tendency is to use them on an ever-increasing scale on other mines.

I append also extract from a letter from Mr. A. J. Brett, Manager of the Crown Mines, Limited, addressed to the Consulting Engineer and dated 14th November, 1913,* in which he points out that four years after the amalgamation programme had been carried out, the monthly mine tonnage had been increased by nearly 62,500 tons with exactly the same number of natives working, "that is to say, we have produced the mine tonnage of, say, the Nourse Mines without drawing on the available labour supply for a single boy."

I give the further instance of the New Modderfontein Mine, which can to-day supply 52,000 tons monthly to the mill with about 900 natives less than it could about a year ago, owing to the largely increased use of machine drills and to the carefully thought-out system on which the underground workings have been laid out.

I do not contend that all mines could afford to spend the money to achieve similar results. I am merely indicating what can be done and what, I think, will be done in the majority of cases.

I now turn, briefly, to other subjects:

Sale of Illicit Liquor.

Members of the Commission will have gathered that although the sale of liquor to natives is prohibited in the Transvaal, an immense amount of illicit selling does take place. If the Commission could help us to get this finally stopped it would be doing a really great service to the Witwatersrand. I venture to suggest that in no other direction could the Commission help us more. The regulations at present leave loopholes which ought not to exist.

I append extracts from the Liquor Licensing Ordinances of 1902 and 1906:—

Extract from Liquor Licensing Amendment Ordinance. (Ordinance 8 of 1906.)

Section 14.—No person shall convey or cause to be conveyed from any premises, in any town, village, or municipality to any other premises or to any place any liquor in quantities as great as is mentioned in Sub-section (1) of Section 7 of the principal law unless he shall be in possession of a permit issued by the Resident Magistrate . . . .

Any person who shall contravene the provisions of this section or the conditions of any permit granted under it shall be liable on conviction to a fine not exceeding fifty pounds, and in default of payment to imprisonment with or without hard labour for a period not exceeding three months or to both such fine and such imprisonment, and any liquor conveyed in contravention of this section or such permit shall be forfeited.

Extract from Liquor Licensing Ordinance, 1902, (Principal Law). (Ordinance 32 of 1902.)

Section 7.—In regard to Licences granted under this Ordinance, the following definitions and provisions shall apply:—

(1) (*a*). A "Wholesale Liquor Licence" shall authorise the holder to sell and deliver liquor in quantities of not less than two gallons if in

* Not reprinted.

cask; or one case containing not less than twelve reputed quart or twenty-four reputed pint bottles to be delivered at a time. Such liquor shall not be consumed in or upon the licensed premises.

The position, which is most unsatisfactory to-day, is in danger of becoming worse. For years great pressure was brought upon the Government of the Transvaal, and has also evidently been brought from time to time on the Government of the Union of South Africa, to abolish total prohibition of the sale of liquor to natives on the Witwatersrand, and to encourage the sale of the so-called light Cape wines. In fact, the Government has been urged to undertake the sale of these light wines itself. I say confidently that no measure could be introduced here with more disastrous effects as regards the health of the natives, or as regards the safety of the white women and children who live in close proximity to them. An important section of this community have more than once asked for what is known as local option or the right of local veto. I contend that it is monstrous that this should not be accorded to them. In no place in the world is it more necessary that the people on the spot should be allowed to direct, control, or suppress the liquor traffic.

Trading on Mining Ground.

I enclose memorandum,* containing information on this point, prepared by Mr. S. C. Steil, one of our Joint Secretaries. Many of the trading licences were granted in opposition to the wishes of the mining companies. There is no doubt that it would be very much better for the native if these trading stores ceased to exist; where necessary, compensation should, of course, be given. The difficulty of dealing satisfactorily and radically with this matter appears to have been always exaggerated.

Housing of Natives.

Members of the Commission have seen the report of Surgeon-General Gorgas, in which he recommends the erection of villages for natives on the mines. I shall be pleased to answer any questions on the subject that the Commission may wish to put. Nothing could, of course, be done in a hurry, and any commencement should be made on a small scale.

Housing of Whites.

We have taken a keen interest in this subject. A model village was started last year on one of our mines, the City Deep, Limited, where the men will have an opportunity of obtaining on very advantageous terms full possession of the properties as soon as Township Rights have been granted to the Company. It is expected that these rights will be received within the next few months. It will be seen from the conditions, copy of which I enclose,† that a number of rebates are offered to men who remain in the employ of the Company, or who have large families of young children. It is further laid down that once a man has entered into possession of one of these houses he may remain there as long as he continues to pay his instalments, no matter if he continues in the employ of the mining company or not. He could leave the employ of the Company on the day following his entering the house, and yet remain permanently in possession of the house. This is a privilege which, I believe, has so far not been accorded elsewhere. It is intended to help to settle good workmen on these fields.

General.

I wish to emphasise one point which was touched on by Mr. R. N. Kotze, in his evidence before this Commission. The estimate, prepared by the Transvaal Chamber of Mines for the recent Economic Commission, of 550,000,000 payable tons still to be worked, referred only to the tonnage in the present producing mines on the Witwatersrand and down to an assumed vertical limit of 7,500 feet.

Mr. Kotze has given the interesting information that his own estimate is in the neighbourhood of 580,000,000 tons, and he added further that he calculates roughly that there is likely to be an additional quantity of 580,000,000 from other areas so far unexploited, notably, I think, on the far eastern fringe of the Rand. His total estimate is, therefore, approximately 1,160,000,000 tons of payable ore still to be treated on these fields or in their immediate vicinity. It is interesting to note that only about 280,000,000 tons have been mined on the Rand between the time of its discovery in 1886 and the end of 1913.

According to Mr. Kotze, about 80 per cent. of the tonnage is, therefore, still untouched.

I have had to prepare the whole of this statement very hurriedly owing to the short time accorded to me. I shall, of course, be pleased to supplement any points verbally.

2279. **(Chairman.)** Do we understand that you think amalgamation economically desirable, but politically and practically difficult or impossible?—I think it theoretically desirable, but I see very big obstacles looming in front of anybody who tries to put such an amalgamation scheme into effect.

2280. Obstacles of a mining nature or a political nature?—Chiefly of a practical and of a political nature. That is to say, if the policy were carried out of closing down the poorer mines to enable the richer mines to work to greater advantage.

2281. You quote the opinion of Mr. Kotze, the Government Mining Engineer, and I should like to know to what extent you agree with him. He states that he considers amalgamation of the whole Rand to be in the interests of shareholders. Would you agree with that?—I think it would certainly be in the interests of some shareholders, but it might be a little difficult to prove it would be to the interests of other shareholders.

2282. And he stated further that it would be of advantage industrially to the country?—Yes, if there were no great upheaval. I spoke to Mr. Kotze today about it, because I wanted to be very careful that I did not put any misconstruction on what he said. I think he added in his evidence that there were certain political objections to amalgamation, but he was not given an opportunity of dilating on those objections.

2283. He further stated that it was likely to lead to more contentment among the workmen; what would be your view about that?—I think it is very hard to say. But it is contended by many that if such a policy were carried out, a great impetus would be given to the mining industry of the Witwatersrand, as work could be carried out on a larger scale, and that in this way a larger number of whites would be employed, and that also in this way the inclination towards very frequent changes from mine to mine might be put an end to.

2284. You regard those very frequent changes from mine to mine as producing both unrest and inefficiency?—Undoubtedly.

2285. Do you attribute those changes very largely to competition for the best miners among the various mines—each mine competing against the other?—As far as the miners are concerned, I think that argument undoubtedly holds good, and there is also the tendency on the part of the miners themselves to go to that property where they think they will be able to earn the biggest money. The proximity of the various mines to each other and the facility with which good miners can obtain employment, tends to make them change much more than would be the case if the mines were more isolated. We have a rather interesting example of mines controlled by our firm in Pilgrims Rest District, which is situated a good many miles away from here, and from any other mining camp. The men go there and stay there, and there are very few changes, comparatively speaking. I think that is also the experience in other parts of the world where you have one great camp, the men change to a far greater extent than in the case of isolated mines or isolated small groups of mines.

2286. That greater unrest I suppose exists only where the mines are competing against one another?—Chiefly, but I do not know if that would be the only reason. I understand in the colliery districts at home, which are situated close to towns, there is also

* Printed as Appendix XI., p. 114. † Not reprinted.

a considerable amount of change on the part of the men, whereas in the colliery districts that are more isolated, and away from very large towns, the changes are comparatively rare, and yet the collieries do not compete among themselves for these men.

2287. Would the change from the contract system to a fixed daily wage, plus bonus, ameliorate the present position of affairs?—I think it would tend to do so. Of course, we are working gradually on those lines, but we must be careful not to take any step in a hurry. You cannot suddenly completely abolish the present flat contract system.

2288. Because one mine cannot do it without the others following?—Well, we are not sure yet what is the best method to have instead of it. We have to grope for it, so to speak, to some extent.

2289. Is the Chamber of Mines working harmoniously on this subject?—As far as I know.

2290. I mean to say there is no divergence of opinion between the different groups?—I think there is always a certain amount of reasonable divergence of opinion; I think too that the question is rather how soon such a step should be taken. Some groups would no doubt be more anxious to make the change in the very near future than others.

2291. The point of my question was rather how far that divergence of opinion, if it exists, retarded reform?—I think that when reform is clear, reform will be instituted, but one wants to be quite sure of the reform first.

2292. And the divergence is rather as to the way of introducing the change—rather than as to the principle of change?—Yes.

2293. Can you tell the Commission anything respecting the efficiency both of the white and black labour here as compared with that on other fields?—I think it would be hard to compare native labour here with any other class of labour in other parts of the world. There is not the same class, is there, working elsewhere?

2294. In India, is it similar at all?—I could not say whether the two would be comparable.

2295. Could you give any tables showing the tonnage mined per native as compared with the previous years?—I have no tables prepared, but as I have indicated in my statement, the efficiency of the native —that is to say, the work done by the native, either with his hands, or with the aid of rock drill machines —has greatly increased in the comparatively near past. I mention in my statement the Crown Mines figures for the last month of 1913 which show that with exactly the same labour force as at the end of 1909, they milled 62,000 more tons than in 1909, and I also refer to the New Modderfontein. At the beginning of 1913, the New Modderfontein had a total of 4,600 natives in its employ. During the year, the mine effected various economies, and completed its system of unification underground, and I think I am safe in saying that we can do the same work to-day with 1,000 boys less.

2296. That suggests the idea that taking the field as a whole the native labour force is not now being utilised in the most economical fashion?—That is absolutely certain.

2297. Therefore, if other methods were introduced —more machines or other devices—your present difficulty of native labour might conceivably be wiped out?—Yes, or at all events, wiped out to an appreciable extent. That is the tendency of my argument in the earlier pages of my statement.

2298. That the introduction of more scientific methods would largely fill up the deficiency of native labour which now exists?—Yes, and generally better management—more economy.

2299. More economy in mining?—In the handling and the use of natives—less waste.

2300. Both as to the introduction of machine drills and in other ways?—Yes, certainly. I indicate in my statement that through the more extensive introduction of machine drills you might save nearly half the labour of which we are at present short.

2301. Is there any other large subject of economy, outside the introduction of machine drills?—There is the question of the lay out of the mine, so as to work it to the greatest advantage, and that, of course, applies more to large mines than to small ones.

2302. I suppose that the possibility of economic lay out is far greater in a large mine or unit than in a small one?—Yes, it is, and we must remember that the bulk of the tonnage is produced from large mines.

2303. But is the bulk of the labour absorbed by the large mines?—Yes.

2304. Can you give any figures showing to what extent rock breaking by machine prevails as compared with hammers? Well, I see for the month of December 1913, there were 823,000 hammer shifts worked on these fields. There were also 372,000 machine shifts worked for the same month. This should indicate approximately that there would be 33,000 natives working with hammers and 15,000 natives working with machine drills.

2305. Of those now on hammers, what proportion could work with machine drills?—I think I am right in saying a very large percentage. May I explain? Many mines cannot work with machine drills to the same advantage that they could if they could have a constant supply of hand labour. But in view of the shortage of native labour, which we assume will continue to exist for a very long time, if not always, we in our groups have made up our minds that it would pay us definitely to adopt the machine drills almost everywhere, even if in some cases it is not the ideal thing, and we might use hand labour, if it were constantly available, to greater advantage. But it is no good working for some time with hand labour and then having to change to machines, because such a change is not as easy as it sounds. It takes two or three months to get a stope face that has been used for hand labour into shape for the use of machine drills, and *vice versâ*.

2306. Is it not the case that the introduction of machines increases largely the proportion of whites compared with the number of natives employed?—It would tend to increase, but I think only slightly.

2307. I have been given figures to show that the proportion in the case of machines was about one white to ten Kaffirs, and in the case of hammers one white to 20 Kaffirs?—Yes, but I do not know that that would make a very appreciable difference to the total, and the ratios may change.

2308. That would not be the cause of increasing the employment of white labour?—It would to a small extent.

2309. Now, you state that three years ago you introduced very large amalgamations, and that you desire to await the results of those amalgamations before going further—could you tell the Commission whether these results have been satisfactory on the whole or not?—Yes, on the whole they have been very satisfactory. The figures quoted for the Crown Mines are perhaps the strongest I have to produce. I could, if the Commission would like, hand in a statement prepared by the General Manager of the Crown Mines about eight months ago, in which he dealt with the matter in great detail, pointing out the benefit that had accrued to that property through the amalgamation.*

2310. I think it would be of great interest to us if you would kindly do so. Because the policy of the future in regard to amalgamations must clearly depend upon the success or non-success of past amalgamations?—That is so.

2311. Now, you state also that all the mining groups have recently joined a body called the Native Recruiting Corporation, with the object of recruiting for all native labour within the Union of South Africa. Could you state your views on the general subject of native recruiting—whether you consider the present system is satisfactory?—I think the ideal is, of course, for the native to come up voluntarily and there is a strong tendency for him to do so already. I think the Chairman of the Corporation has put certain figures before you. Five years ago the number of natives that came voluntarily to the Rand was only 9,000 and the year before last, 1912—I am dealing now with natives from British South Africa—the figure had risen to 51,000. For the year 1913, it fell off somewhat, owing to strikes and unrest, but it was still 34,000, so I think these figures go to show that the tendency on the part of the native in British South African territories is to come up by himself if he possibly can. It was put to me quite recently

* Paper read before The South African Institution of Engineers on March 7th, 1913, by Mr. Ruel C. Warriner.

by one of the leading officials that no boy is a recruited boy if he can possibly help it.

2312. Why? Because a portion of the remuneration goes to the intermediaries then?—The chief reason is that the native who comes at his own expense is free to choose the class of work when he arrives here, and he is on monthly notice, so he can leave at the end of the month; and it gives him a sense of freedom that he does not possess if he is tied down for three or four or six months, and yet very often these boys remain longest.

2313. When the boy joins voluntarily does he get any portion of the commission which he would cost if he came under the native recruiting system?—No, that is not arranged.

2314. I think we understood from De Beers or the Premier that they had adopted the plan; would it be expedient?—I think it should be considered. It is much better that the boy should have the incentive than that the money should go for no particular reason to the intermediary.

2315. I think every student of the problem must be impressed with the very large figure of cost, which is estimated at something between 650,000*l.* and 1,000,000*l.* a year, paid to these intermediaries?—Yes, I think it is much too high.

2316. Can you tell us anything regarding the system which apparently prevails under which most of the boys, before they engage themselves to these agents of the Native Recruiting Corporation, are in debt to the storekeepers, and working to get themselves free from debt?—I think it is very difficult to make any definite statement on the subject because there would be so many causes. In some cases, no doubt, the natives get into debt in order to make provision for their families, and in others to buy things they do not require. But I might state that at the end of January of this year there was a small deputation from the mining houses to see the Prime Minister, General Botha, on the subject of the advances. It was then stated to be the intention of the Government to put a stop to these advances to natives within the Union. The deputation consisted of Sir George Farrar, Mr. Chaplin, and myself, and we pointed out to the Prime Minister that we considered that in principle the system of giving advances to natives while being recruited was wrong, and that we should be satisfied if an end were put to the system, but we suggested that it might be undesirable to take steps that were too drastic, especially immediately after the strike that had just taken place, because if there had been any set-back in the recruiting operations it would have meant throwing out of work more white men, which would have been most undesirable in the circumstances. General Botha saw the point, and he agreed that the question of the stoppage of advances should remain in abeyance until the 30th June of this year, when it should come definitely into force. I may say that the Magistrates in some of the principal districts of Cape Colony have sent in recommendations that the advances should not be stopped too hurriedly in districts where there had been a severe drought, and where the native might be unable to leave his home if he had not the means of making some provision for his family before he left.

2317. If the whole present system of recruiting were abolished and the natives were left to find their own way to the mines and engage themselves freely, would that lead to a very grave deficiency of native labour, do you think?—If that were instituted now?

2318. I mean gradually?—I think it is the desirable thing, but we must be careful not to hurry these things unduly, because the whole community would suffer so very severely through any extreme shortage or set-back. It is undoubtedly the ideal thing that natives should come of their own accord.

2319. You go on to discuss the question of illicit liquor. I have asked Mr. Sinclair to examine you on that subject, so I will not refer to it now. Now, in regard to the housing of natives, I gather from your statement that your policy is to introduce changes in the direction of General Gorgas's report of creating locations, but to introduce the change slowly?—Yes, we would like to introduce changes, but the subject is a very difficult one and one would have to go slowly, as I have indicated. The chief difficulty lies first, perhaps, with the expense involved, which would be very considerable, and secondly with the question of the sale of illicit liquor, which hangs over us everywhere in connection with the native on these fields. It would be absolutely essential, if such villages were established, that there should be no facilities whatever for liquor getting into these villages. I may say I have discussed the matter with various Government officials; in fact, I discussed the matter a year ago before General Gorgas had written his report, and suggested something on the lines recommended by General Gorgas himself. After all, one feels that the conditions of housing on these fields as regards the natives are not quite natural, and if we want to make the Rand attractive to the native, which we ought to do, especially in view of the shortage of the labour which is always threatening us, we ought to do more to make their lives resemble the lives they lead in their natural conditions, and while it is certainly true that one cannot bring up families for two hundred thousand natives or so, it is a question whether one should not consider giving the facilities to a comparatively small number of natives to bring their families here, and see whether that does not induce them in the first instance to come here more readily, and in the second instance to remain here longer.

2320. Does the shortness of their present stay or present engagement militate very severely against their efficiency?—Yes, very severely indeed. Our loss in regard to the labour force is in the neighbourhood of ten to twelve per cent. per month, and it must be remembered that the natives who go are those who have become efficient. We are not losing ten or twelve per cent. of our efficient force, but twenty to twenty-four per cent., perhaps, of our efficient force every month on the average, and that is a terrible drawback to the economic working of a great industry like this.

2321. It is almost as far from the scientific ideal as a white force of 13 per cent. moving every month?—Yes, it is a very great handicap.

2322. And if these locations were established on the lines proposed by General Gorgas you consider that the natives would stay permanently or for much longer periods?—Well, that is one's impression. It is very hard for us to say what the native is going to do and to fathom the native mind. But I discussed the question myself several weeks ago with the natives in the City Deep Compound. I let them know I was coming to discuss this subject and wanted them to think it over before I came. I was two hours in the compound discussing the matter with the various chiefs.

2323. And their view was?—That they liked the idea very much. They understood, of course, that facilities could be arranged in the first place only with the permission of the Government, that it would take some time to make the necessary arrangements, and that they must not expect anything immediately. They understood that any village so formed would have to be enclosed and guarded in order to keep out illicit liquor sellers. They realised also that these huts would be given, in the first instance, only to boys selected by the Company as being the best underground boys. It was clearly explained to them that such facilities would be held out as an inducement and reward for boys who were doing the best work. They asked a number of questions, especially the Basutos, who took the keenest interest in it. I may say they were all extremely interested and pleased with the idea, but they had certain objections to raise to the proposal as it was first put by me to them. They objected, I was astonished to find, very strongly to the type of hut that was proposed by General Gorgas, and which I myself thought would find great favour with them, and that was a hut of the native type with a thatched roof. They objected to the thatched roof very strongly; they were afraid it would be too easy for other natives to come and burn them out. The representatives of every tribe to whom I spoke raised that same objection, which they considered a very serious one, and they said they did not want a thatched house. Another native also raised an objection against having a one-roomed hut. He said: "How can I bring my family here and live with them in one room?" And, after all, the objection cannot be considered as an unreasonable one. They inclined to have a two-roomed iron shanty. They asked questions about the facilities that might be given for bringing their wives and

families up, about the facilities for education, and, above all, the facilities for buying stores, if possible, from the Company at not too high prices. They had thought the matter very carefully over and they asked a number of questions and showed they took a deep interest in the subject. I have also had enquiries made at other mines with somewhat similar results.

2324. The upshot of your enquiries would appear to be that if locations were provided there would be keen competition among the best natives to get places in them?—I think so, certainly, as far as I can tell you, and that is also the opinion of a number of authorities upon the subject with whom I have discussed the proposal. I may say that the mine in connection with which I was considering the matter twelve months ago was the New Modderfontein. I had the matter put before the natives there. I wanted their opinion, and I was told that it was distinctly favourable. Since then the Compound Manager has told me that he has been several times approached on the subject by natives and asked whether the facilities outlined by me at an earlier date would be given effect to soon.

2325. Now, turning to what I suppose is the other extreme—the closed compound—have you considered the merits of that as compared with your present system?—Everybody thinks the closed compound is the best system, but everybody is afraid to say so. Everybody is afraid to deal with the question of vested interests of the storekeepers along the Rand.

2326. Is that the only objection to it, or the main objection?—That would be the main stumbling block, I think. All who know say it would be in the interests of the natives to have the closed compound if possible.

2327. The native being, I suppose, the person primarily to be considered in the matter?—I suppose he should have some consideration.

2328. Do you know at all from the natives themselves if they prefer this or dislike it?—I could not say. We do know that the native at Kimberley is extremely happy under the conditions that he works there.

2329. Have you any figures to show the result of that system in the amount of money the native takes home or sends home to his family, or the amount he is enabled to save of his pay?—I could obtain such figures.

2330. I think they would be of interest. We were furnished at De Beers with figures to show that a very large portion of their pay was remitted home through the post office or taken home at the end of his term?—Would you like figures dealing with the British South African boy and also with the Portuguese boy?

2330A. I think it would be of interest to have both?—It will be the nearest estimate we can make.*

2331. Now, turning to another subject, you quote Mr. Kotze's estimate of tonnage still available. Do you consider his estimate to be too optimistic?—Well, I think he is more qualified to make an estimate of that kind than I, especially in his position of Government Mining Engineer.

2332. That is to say, he has access to figures for the whole field?—Not only that, but he is an engineer.

2333. Can you state your own view of the subject at all?—I think there is no doubt whatever that the possibilities of the far eastern Rand are enormous. It is only a few years ago that the New Modderfontein was on the outposts of the Rand; Modder B lay immediately beyond. We had in earlier years done a certain amount of prospecting and development work at Modder B, but it was done on a somewhat timid scale, the results were not entirely satisfactory, and the property was allowed to lie fallow. To-day the Modder B is one of the finest mining properties on the Witwatersrand. It is only a comparatively few years ago that work was started on the Brakpan Mines in an area then entirely unknown. It was considered by many people to be a doubtful venture. Shafts were sunk at a distance of approximately four miles from the outcrop, and the reef was struck at an approximate depth of 3,200 feet in the north shaft and 3,700 in the south. The Brakpan mine to-day is one of the big mines on these fields. Later on again, further away, work was started on the Springs Mines in an area which again was beyond all known districts. The development in that property to-day is not very great, but I understand that about a total amount of one mile of driving has been done, and I understand also that the values on the whole are satisfactory. Four miles or so further east beyond the Springs Mines a large shaft is being sunk on the farm Daggafontein, approximately three miles from the sub-outcrop, which is still further to the east. This shaft should strike the reef at 3,500 feet approximately in the course of the next few months, and it will be extremely interesting to see what the values in that locality are. It all points to the fact that gradually the Rand is extending eastwards, and that large payable mines which comparatively recently were not believed to exist have been found and are being worked at a profit. The area that is still untouched in this district is enormous. In the report of the Chamber of Mines to the Economic Commission it would seem that there are approximately 86,000 claims in this area which may contain reef. Or, at least, of the 86,000 claims mentioned in that report I think it can be taken for granted that the great majority are in that area.

2334. I think of Mr. Kotze's figure of 86,000 claims he assumes that one-third are payable?—Yes, I think he said so.

2335. In one of the annexures to your memorandum you give us the working profits of all working companies as £12,189,000 and dividends at £8,194,000. What is the reason of the difference between those figures?—The difference would be accounted for by such items as payment of interest on debentures, chiefly though by expenditure on capital account out of profits. As far as our own group of mines is concerned, the expenditure on capital account is in most cases drawing to a close now, so that the proportion paid out in dividends is likely to increase in the future.

2336. That is to say, a larger proportion of the working profit will be available for dividends?—Yes.

2337. As regards Mr. Brett's letter which you refer to, I should like to know on what basis under present arrangements are boys allotted to the mines?—The boys who come voluntarily choose their own mines. Recently it has been laid down by the Native Recruiting Corporation's members that the distributions to the various mines must be made as equally as possible, the distributions in the past not having been made equally to mines, notably ours, I think, which have suffered very considerably thereby. During the last month or so, we found it was possible without the least difficulty to allot 88 per cent. of the total boys recruited from the British South African territories to the various mines where they were most required. In other words, there was no difficulty in making these allotments as required by the mines.

2338. I do not understand how you fix the complement for each particular mine?—The complement for each particular mine depends, to a large extent, on the milling capacity of the mine. That is taken as the basis. Other factors are also taken into consideration, such as the nature of the reefs, thickness of reefs, and dip of reefs, and so on. And it is calculated by the consulting engineers that on the basis of the natural conditions of a certain mine and on its milling capacity it should have a certain complement of labour.

2339. Is the complement fixed on the assumption that every mine follows the best practice as regards economy of native labour or not, or do you reward a mine for hanging behind in improvement?—In theory it should be on the basis of the natural conditions so that the mine that effects economies shall have the full benefit of the labour, but it is a very difficult question, and the consulting engineers, I think, do not always follow that line exactly, but follow the line of least resistance, and take the results of a mine for three months and allot a complement accordingly. We have strenuously opposed that, and we shall in future, more strenuously than in the past, insist that any mine that makes economies in the introduction of rock drill machines or better lay-out shall reap the full benefit. We shall lay that down in future as a *sine quâ non*.

2340. The contrary practice would appear to favour extravagance?—Yes, and inefficiency.

* The witness subsequently supplied the information printed in Appendices VIII. and IX., pp. 112 and 113.

2341. If a mine gets a large proportion of boys voluntarily does it thereby diminish the number allotted of recruited boys?—It would mean, if the number of boys working at that mine is in excess of the average percentage working at other mines, it would not receive any labour either from East Coast sources or British South African sources: no allotments would be made. But the intention is, I think, to put up no barrier to voluntary boys coming up at their own expense to work on a particular mine. I think that everything should be done to attract that form of labour, and if a mine can legitimately contrive to attract a large number of boys in that way it should be allowed to reap the full benefits.

2342. There is one point on which your knowledge may help us: we were told the other day that the temperature increases at the rate of one degree for 55 feet?—That is quite wrong. The increase of temperature* in the mines is in the neighbourhood of one degree Fahrenheit for every 245 feet in vertical depth.

2343. Is that rule based on a sufficient number of facts to be certain?—A great many tests have been made in our mines and we have paid great attention to this point.

2344. So that the statement of the Chamber of Mines was quite wrong?—Yes. If it increases one degree for 55 feet, where would we be at 5,000 feet where we are working to-day?

2345. The fact is, I understand, that the temperature increases at depth not so rapidly in this part of the world as in other places: it increases here at a much slower rate?—That is what we find, more slowly here than in any other part of the world.

2346. You consider one degree for 245 feet as absolutely established?—Yes, as far as our knowledge to-day shows us. Of course, whether the ratio of increase will grow less or greater as we go deeper I cannot say.

2347. **(Sir Alfred Bateman.)** I should like to ask a little about this amalgamation: I gather you are in favour of entire amalgamation?—No not exactly. I see big difficulties, and, as I said before, when the matter was first seriously discussed, as far as our firm is concerned, we made up our mind we could not take the thing in hand at all.

2348. Are you in favour of it, because of the advantage you would get in buying: you would have no competitors in buying for the mines?—I must make it clear, from the outset, that I am not greatly in favour of the idea.

2349. Then you don't want me to pursue the matter?—Yes, if you wish the subject to be discussed, but, as I say, I myself am not a strong advocate of this big amalgamation, seeing the great difficulties that lie before us—that is assuming that the policy would necessitate the closing down of a large number of poor mines in order that the richer mines would work to better advantage. That is where the difficulties come in.

2350. You speak of closing down a number of poor mines. But would there not be the possibility of opening a number of poor mines also? If you got more efficiency, as a result of amalgamation, you would be able to work poor mines which to-day it is hardly possible to work economically, would you not?—I do not quite understand the question.

2351. It seems to me that you speak of two tendencies—one, that you would immediately close down a number of poor mines?—Not that we would.

2352. No, I mean the combine, if I may so call it?—Yes.

2353. But then, from year to year, as you increased in efficiency you would be able to open poor mines?—Yes; if they were payable.

2354. The very effect of conducting things more cheaply and efficiently?—The question is whether the amalgamation would help you to work more cheaply.

2355. You do not think it is proved?—I think it is a debatable point. I see there are a number of advantages, but I think it is a debatable point. You see a paper amalgamation would not immediately mean an effective amalgamation as far as the underground working of many mines is concerned. Many independent units would have still to be worked practically as independent units for a considerable number of years, even if everything were done to bring them into line. It took us at the Crown Mines with every effort and with great expenditure four years to unify the mine and work it as one whole, and it would take a considerable time to unify your various mines so that you would be able to work them cheaper than you can to-day. It is open to question whether they could not be unified in some way to advantage possibly without such a sweeping amalgamation.

2356. The first thing is that you would scrap a number of Boards of Directors?—Yes, I suppose they would be the first to go.

2357. That would not be very popular?—Not among the Directors.

2358. In getting rid of your gold there would be no particular advantage. You do not sell your gold at competitive rates?—No.

2359. There would be great savings in salaries?—I do not admit that there would be great savings in salaries. I think that is a debatable point. You see you could not work a great area like the Witwatersrand by one man. If you did amalgamate—supposing it were feasible to amalgamate the whole area and there was no serious opposition, and you could carry it into effect—you would have to split up the area into various districts and organize each district with its own staff, and have people definitely responsible for that district. It is not clear to me that the saving of salaries would be very considerable after all. The main point is, I think, that you would, under the scheme of general amalgamation, be able to throw your labour forces where most required and not fritter them away on poorer mines as they are to-day. That is the one argument that appeals to me.

2360. Then there would be a great monopoly of employers. Now if a man gets dismissed to-day he can go elsewhere, but under amalgamation he could not do that?—Not under a proper system of management if a man had committed any serious offence.

2361. Do you contemplate that there would be a large Union on the other side to bargain with you?—Yes.

2362. So you would have these two great forces bargaining, as we know is often the most satisfactory manner of settling a dispute, rather than a number of separate units?—Yes, if the leaders are good men.

2363. You contemplate having very good men as your leaders?—We would hope so under that scheme. I want it to be clearly understood, however, that my firm is not recommending this scheme. We would have to be convinced that it was most desirable.

2364. Would not the Government be likely to interfere with you more with this great monopoly than now?—I think it would.

2365. To the extent of wanting to take it over?—Possibly, if it became a very important factor in the State. The Government might think it would be in the interests of the State that it should be controlled by the State and not by a private owner. I think that is quite possible.

2366. Then, on the whole, you have rather an open mind on it?—A very open mind. We should require a great deal of convincing to make us support the scheme, although, in theory, we admit it is attractive. The upheaval we fear would be very great if any such policy were to be introduced as indicated, by shutting down the poorer mines.

2367. Now, in regard to the drink question. You are very much opposed to extending the sale of light Cape wines to the native?—Any wines or liquor.

2368. Have you had any experience with the Portuguese natives who have had light wine before coming here?—Yes. It is the policy of the Portuguese Government to sell as much Portuguese wine as possible for revenue purposes.

2369. A bottle a day each, is it not?—I could not say. That is the same policy that many politicians in the Cape Colony would like to see adopted here as regards the sale of Cape wines, quite irrespective of the health of the natives.

2370. Do you consider that the health of the Portuguese natives has suffered owing to this bottle a day policy?—It think it may be assumed that the wine

* *Witness's Note.*—The increase in temperature refers to rock temperature. The temperatureof the AIR can be kept lower by artificial ventilation. See also Appendix X., p. 113.

they supply is very bad and often strengthened by brandy or some form of intoxicant of an undesirable nature.

2371. Have you the right to assume that?—I think there would be no difficulty in proving it. I am not talking of the wine that is sold in Portugal, but the wine that is sold here.

2372. I am thinking of the Portuguese hock that is drunk throughout Portugal, which, I was told by the Portuguese people some years ago, was the wine supplied here?—Yes, I do not know that it is sold in the same form as it is introduced.

2373. But you do not think there is any possibility of getting this type of wine drunk by the natives?—I hope not.

2374. Why not?—Because I think one should not play with the devil. I think it would be absolutely disastrous to encourage the native to drink.

2375. They won't drink light Cape wines?—I do not know if you have ever found a light Cape wine.

2376. Well, I admit they are better for a little Riebeek water in them. But wine-drinking countries usually show up uncommonly well as regards the absence of drunkenness, do they not?—Some say so, but in European countries they drink the lightest of light wines, which do not stand transport to this country. The wine that would be sold here would not be the same as is sold in Portugal or any other wine-drinking country.

2377. But you get the Cape wine produced here, and there is no transport?—But it is very strong and it would be further strengthened if it was to be made palatable to the native. He does not want light wines, they are no use to him. The native cannot be considered from the same standpoint as the European in this matter of liquor; he is differently constituted and has not the same restraint as the average white man. I think if he was encouraged to drink any form of intoxicating liquors you would render him inefficient and dangerous, and this opinion is also very strongly held by all the churches.

2378. Do you go further as regards the sale of liquor to whites?—My own impression is that if you are to make the prohibition of the sale of liquor to natives absolutely effective, the best thing would be to stop the sale to whites also.

2379. Would you do it by disqualification on account of drunkenness, or by local option, or by prohibition?—I think we must begin slowly; you cannot take too drastic steps all at once, you would have to begin with local option, and I think the people ought to have that right.

2380. In small districts?—I could not say what the size of the districts should be—that would be a matter which would have to be referred to some representative board.

2381. Do you not think that a great hardship would be inflicted on the moderate drinker by being prevented from having his glass of beer or wine?—I think that although that might be the case in European countries, the case is rather different here. Here you have a comparatively small number of whites surrounded by a great number of natives. Now the white drinker must consider whether under the special circumstances of this country he should not be prepared to make some small sacrifice so as to safeguard the honour of his women—leaving out of consideration altogether the comparatively minor point of the efficiency of the native working on the mines.

2382. As in regard to other matters, you think the question is entirely altered in this country by the presence of this large coloured population?—Undoubtedly.

2383. **(Mr. Sinclair.)** I want to ask one or two general questions, and then something on the subject of trading stands, and also on the subject of liquor. Now, if further amalgamations were to take place—and we have heard your personal opinion that you are not in favour of them—would one result be the lessening of the daily pay of the worker? It is impossible for me to say, but my own feeling is that there is no need to reduce the wage of the white worker. My feeling is that everything should be done to increase the efficiency of the worker, and the output of the white worker. You want more work than is being done to-day. Taking into consideration the high cost of living and various other circumstances, it would not be wise, in my opinion, to endeavour to make any reduction in the standard rates of wages.

2384. Do you think that such amalgamations would result in a less daily wage to the black worker?—I do not think the daily wage would be affected at all by the amalgamation. I think also it would be most impolitic to try to cut down the wage of the native. You must do everything you can to induce the native to come and work, and you must do all possible also to increase the efficiency of both white and black. Given a shortage, you must try and overcome it by extra efficiency.

2385. Does the management of the companies assume that in the future the working of the mines will involve a higher daily wage than is paid now? Apart from economics?—Are you speaking of the native?

2386. Of both. You may deal with them separately. My own feeling in the matter is that the tendency will be to pay more, but you will get better work done for it.

2387. In the case of whites and blacks?—Both. I do not say that the miner who is earning a very big cheque to-day will get much more in the future. But I think the tendency will be for the management to encourage the workers to do their utmost and pay them accordingly. To-day, we are on the whole not getting full value—especially from the whites.

2388. Then the higher wage that may reasonably be looked forward to in the future will have to be met by economics in some direction?—Yes. You will get higher efficiency for one thing. You do not pay more unless you get more work done.

2389. The use of machine drills would be an economy apart altogether from the economy that might be brought about by amalgamation?—It is a difficult question to answer definitely. I could not say there would be any actual economy as far as breaking rock is concerned. That is to say, assuming that the drills were running efficiently and economically, and assuming also that hand labour is well used.

2390. Then amalgamation would result in less competition for labour. That goes without saying?—That would refer to only one class of labour, and that is the good miner. To-day there is active competition on these fields only for the good miner—the really good miner, who is rather scarce. There is a very ample supply of workmen of all other descriptions.

2391. Then the saving that would be brought about would be probably that lesser numbers would be employed, and that the individual worker would be getting more than now?—Through the greater use of rock drill machines?

2392. Yes.—Yes. I also think that economics will be effected in the use of rock drill machines. You will also get better duty from each individual machine. The tendency is towards improvement. But I do not think that rock drills will effect great economy as against hand labour, although it may possibly be so.

2393. And the worker is not to be looked to to provide the impetus to mining and to lessen working cost by himself taking a less daily wage? That is the point I want to get at?—No. I think it would be very unnatural if one did look at it in that way.

2394. Just one question as to recruiting. One of the difficulties that has to be met, and one of the influences that has to be faced, is that of the chief, is it not? He is unfavourable to his boys going to work in the mines, is he not?—Sometimes, but not always.

2395. We had it put before us by a native on Saturday* that the chiefs were in many cases very strongly opposed to recruiting, and used their influence to prevent it?—I think you will find, if you ask an expert on native affairs, that many of the chiefs are really anxious for the natives to go out to work in order to get money.

2396. You think it is a divided opinion?—Yes.

2397. We had evidence from two natives on Saturday who put forward that as their opinion. Now in regard to trading stands on mining ground—what is the definite purpose of allowing these trading stands?—On the part of the Government?

* See Appendix XVIII., pp. 119-123.

2398. Yes.—I think they do it to derive revenue.

2399. Is it done for the convenience of the worker, or are they licensed for revenue purposes?—I should think for revenue purposes almost exclusively, because the natives can be freely supplied in other ways. The Government and the mines have never been able to work hand in hand in this matter.

2400. Then you suggest that these licences are granted and these privileges are conferred in order to produce revenue for the country?—Well, I think that is the main underlying idea. There may also be a certain subsidiary political aspect of the question, which perhaps need not be discussed.

2401. They were established, as I gather, in opposition to the wishes of the mining companies?—In a great many cases.

2402. Can you tell us in what articles the grantee of such a licence is allowed to trade? General merchandise, I take it?—Yes.

2403. Is he allowed to keep liquor?—He is not allowed to keep liquor.

2404. He is not allowed to keep liquor either for the supply of white or black?—No, but, of course, the temptation in some cases has been very great for the storekeeper to keep liquor and sell it. Take the instance of the Modder B. We are out on the veldt there, and we had the strongest objection to a store being put up against the compound doors, so to speak, but the Government insisted on it, and they put the stand up to auction and received a tender of 2,005*l.* per annum for the use of this store. Now, how is a man going to make a legitimate profit if he is going to charge a reasonable price for his goods, and if he is not going to sell liquor? But that price, I may say in fairness, has been reduced since.

2405. In other words, the licensee of such a right is rack-rented by the Government?—Well, I think that would be rather an exaggeration of the position to-day, because the position has been improved by the reduction of those figures.

2406. It has been reduced from 2,005*l.* to 110*l.*?—Yes, in that case. This was done while I was in Europe. The man received the right to hold it for ten years. Now we should have opposed that, if we could have done so with any chance of success. We have the strongest possible objection to vested interests being formed by the Government in this way.

2407. The ground of objection I understand you put forward as representing the company is that the system is unnecessary and is open to abuse?—Yes, in many cases it is abused.

2408. Have there been many instances of the Government licensees selling liquor?—Nothing has been proved.

2409. But the knowledge you have seems to suggest, in view of the position you put forward, that there are abuses that are against the best interests of the worker?—Undoubtedly there are loopholes in the regulations which facilitate the selling of illicit liquor, and these loopholes have not been rectified.

2410. You use the word "loopholes" in your statement; have you in mind any particular shortcomings of the existing system?—Yes, I have in mind the clause in section 7 of Ordinance 32 of 1902 of which I have here a copy.

2411. Yes, I was going to ask you if you could let us have complete copies of both ordinances of which you give extracts. It is as well to have the whole context and not merely one or two clauses?—Yes, with pleasure.*

2412. What were the loopholes you were going to refer to?—The fact that a man can hawk about anything up to 12 bottles of liquor at any time and anywhere he likes.

2413. That is in terms of the Ordinance of 1902 of which you have given an extract?—Yes, and also the Ordinane of 1906.

2414. Is that done in practice?—Undoubtedly. That is said to be one of the chief difficulties of the police to stop any man in the possession of liquor. He has a perfect right to carry about anything under 12 bottles. If the authorities wish to put the matter right—I am not speaking of the police authorities, who do their best under the circumstances—they should put a stop to liquor being transferred from place to place in this way.

2415. It is the facilities for the hawking about of liquor which are provided under the present Act which facilitate this illicit traffic?—Undoubtedly.

2416. Now, liquor may be sold by the bottle, I understand?—Yes.

2417. Does that fact also facilitate the illicit sale of liquor?—Undoubtedly. It is more easily carried in bottles than in casks.

2418. Would you favour the abolition of the bottle licence altogether?—Certainly the hawking about of liquor.

2419. Well, can you see any advantages in the sale by stores of liquor in bottle under any circumstances except in emergency?—Yes; I see advantages to the grower of the Cape brandy and the Cape light wines, who has the liquor sold in that way. But to nobody else.

2420. And can it not be disposed of in bulk too?—Yes, but it would be more difficult of detection.

2421. But where liquor can be sold in bottles by a store it facilitates, does it not, the sale of the bottle under the denomination of butter or some form of groceries?—Certainly.

2422. Now, as regards whites; can the white be sued for the price of liquor if credit is given? We had it put to us the other day that he could?—It appears to be that the money cannot be recovered. But I would rather give you an answer to that question in writing, which would be absolutely correct.*

2423. Probably if you supply the complete ordinance we would be able to see for ourselves. You are also strongly in favour of the right of the people to local option?—Yes.

2424. And if there is one district more than another in any locality that would be benefited by the carrying of local option it would be the mining district?—Yes, especially where there are 200,000 natives.

2425. One effect would be to protect the native who is least able to protect himself?—Yes, and who requires a great deal of protection against the lower class of white man.

2426. It would seem that it is contemplated that very large sums shall be received by the Government by way of rental for these trading stands in view of the sliding scale that is provided. I see that it is three per cent. of the takings up to 3,000*l.*—3½ from 3,000*l.* to 6,000*l.*, and four per cent. on 6,000*l.* and over, and the freeholder of the ground receives no share in that rental. It goes entirely to the Government, does it not?—Yes. The freeholder has never put in any claim for any share in the profits of this thing. We do not want it. We would rather that the profits were not made, or, if they were made, that they should be used, as under the Kimberley system, for the benefit of the native.

2427. I see that the schedule of amounts which you supplied to us supports the view which you are putting forward now. The sums which seem to have been received by the Company from the lessee of the stands are small: I was going to ask if the Company would be prepared to give them up altogether?—If we could get the whole question of stores put right, we should be pleased to abandon any claim to any form of revenue we have.

2427A. You do not encourage this trading. But, in the meantime, as long as the system lasts, the Company does get these small annual sums. But you would rather be without them?—Yes.

2428. **(Mr. Lorimer.)** Would the effect of the proposed amalgamation be that, for practical purposes, there would be only one employer of mine labour on the Rand?—I think so, assuming that the amalgamation could be put into effect.

2429. With the consequent elimination of all competition for labour?—Are you referring to white or black labour?

2430. I was thinking of white labour.—I was saying just now that there is competition to-day for

* *Note.*—Copies of the Ordinance were subsequently furnished.

* The witness subsequently referred the Commission to Section 82 of Transvaal Ordinance 32 of 1902 as revised by Section 13 of Ordinance No. 8 of 1906, which runs as follows:—"No persons shall recover any sums of money or maintain any suit at law on account of any liquor sold by him on credit to any person for consumption on the premises, except in the case of liquor supplied in moderate quantities with meals to any person actually boarding or lodging with such first-mentioned person."

only one form of labour, and that is the good miner. The other men we can get as we want them.

2431. And under amalgamation that competition would disappear?—Yes.

2432. So that if a man were dismissed from employment here the chances are that he could not find another employer on the Rand, and would have to go elsewhere?—If he were dismissed for a serious offence.

2433. And that might, therefore, possibly result, as you put it, in a certain upheaval, which you are not prepared to face?—Yes, but that would not be the only cause the upheaval, I think.

2434. And you also think that a monopoly would involve increased and, perhaps, undue Government interference?—Yes, although there is a very considerable amount of Government interference to-day.

2435. And there might be more?—It is conceivable.

2436. And you think it might even involve expropriation on the part of the Government?—Yes; I said that in reply to a question of Sir Alfred Bateman.

2437. One more question: In Mr. Brett's letter of 14th November, 1913, part of which you quote in your statement, a comparative statement is given of the work done in January, 1910, and October, 1913. The tons milled had increased during these four years by 40 per cent.; the gold recovered by only 13 per cent., nevertheless, there was a reduction in working costs of 2*s.* a ton, with an increased profit of nine per cent. Now, is all that the result of more efficient working?—Yes; it is the result of having unified the mining work underground, of having turned a series of separate units into one working whole and also to the fact of the more extended use of rock drill machines, which enabled us to break a much larger tonnage of rock with a given force of native labour.

2438. Well, there appear to be a number of contributory causes. Are those in operation now?—Yes.

2439. One might look for a still further reduction of working costs, then?—Yes, there is a still further reduction. We expect for the month of March to have working costs at 15*s.* a ton, and that figure is expected to be reduced in the near future.

2440. That is, from 15*s.* 10*d.*, in October, you hope to bring it down to 15*s.*?—Yes. We did so last month, and we look for a further reduction before long.

2441. In regard to the illicit liquor traffic, I am not quite sure what you mean by local option. What options would you offer the people to vote upon?—The option of retaining the present number of licences, of reducing that number, of increasing it, or of abolishing them in certain districts altogether.

2442. Then, it is conceivable, there is a risk of making matters worse by increasing the number?—I do not think so.

2443. Do you think you would have a chance of getting a vote for abolition?—I think so, later on. I think the place is not ready yet, but I believe it is working that way.

2444. **(Mr. Tatlow.)** With regard to native locations or villages, would it be desirable to try the experiment on a small scale at first, and see how it succeeds from the native's point of view and the employer's point of view?—My personal view is that it would be most desirable, and, if we could get the support of the Government as to the effective banning of liquor, we would like to try the experiment on one or two of our outside mines and make a start almost at once.

2445. Would you not start it except the banning of liquor was introduced?—No, we would make no move whatever.

2446. You had some very interesting conversations with the natives on the question, and they appear to be in favour?—Yes; they also expressed the view that liquor should be kept out of the villages, and anyone found guilty of this offence should be expelled from the village. They considered that would be only justice.

2447. They were in favour of establishing locations?—Yes; and they asked in some cases for facilities to bring their families.

2448. If such locations were established experimentally, would they be confined to married men?—We would confine it to married men. But I should make it clear that in other parts of the country it is done already. It is done almost everywhere except on these fields. It is the normal thing.

2449. It would tend to lengthen the term of the men's service, you think?—Yes. I might quote an interesting example. About twenty years ago there was a mine in the Pilgrims Rust District called the New Clewer. Boys were brought down there and lived in a compound. They died in excessive numbers, so that the natives were most unwilling to come. The management then took the matter in hand, and they said, "We must try to do something quite new. We will let them build their own little huts on the slope of the hill." Well, they allowed them to do this, and the result of the natives living under natural conditions was that the death-rate immediately fell to something abnormally low.

2450. But if you provide a location such as you speak of you propose to build the houses yourselves?—Yes, it would be necessary, where you are in proximity to townships with large numbers of whites living round about, to take greater precautions from a sanitary standpoint.

2451. Would the native have the option of purchasing his house?—I think not. I think he would be given to understand, however, that as long as he did good work he would be left in possession.

2452. Whilst you are not in favour of general amalgamation, the amalgamations which have taken place, you say, have been eminently successful?—Yes.

2453. Particularly in dealing economically with native workmen?—Yes.

2454. That being so, is it likely that further amalgamations will take place in a moderate degree?—I think it is quite possible from time to time. But I do not foresee any important amalgamations in the near future. Markets all over the world have been bad in the past, and shareholders in South African securities and others have lost money, and they say "For heaven's sake leave these things alone." The attitude is very strong now that there should be no shifting about.

2455. Still, what has been done has been to encourage amalgamation?—Yes, and no doubt when there is a clear case it will be dealt with.

2456. You spoke of the growing efficiency of the native workmen: do you look forward to further efficiency?—There is still a great margin for further efficiency, but it is a fact that on the majority of the mines efficiency has improved.

2457. Is the native growing more industrious?—No, it is better organisation.

2458. **(Mr. Garnett.)** While, generally speaking, you are not absolutely convinced of the advantages of amalgamation, there is one point I should like to put to you. Mr. Kotze said it is likely to lead to contentment among the workmen. Does he refer to white or coloured men or all?—I could not tell you. I read this paragraph to him this morning, and he confirmed that it represented what he said.

2459. I take it he meant the white worker. Of course, assuming that there is a large amalgamation, you would then be a close corporation of employers, and there would not be the competition there is to-day to get hold of even the skilled miner. There is, we are told, a good deal of changing about from mine to mine?—Yes.

2460. That is in pursuit of what is called the big cheque?—Yes, to a large extent.

2461. Suppose that competition to be eliminated, inasmuch as some mines would probably pay better to work than others, how would the workmen be allocated, so to speak? Would they be confined to one particular mine, or would it eventuate in a sort of standardization of wages?—It is very hard to say what would happen.

2462. Because assuming that men working on the less remunerative mines could not improve themselves by going elsewhere I cannot see how such a system could lead to contentment?—Personally, I should not be very anxious to have to manage the amalgamated mines of the Witwatersrand.

2463. Unless there were some standardization of wages applying to the same class of workmen throughout the mines, it is not, in your opinion, likely to lead to contentment among the men?—Well, it is perhaps a debatable point.

2464. But you are not convinced?—I am not convinced that the whole scheme could be carried out at

all. I am speaking of conditions as they are to-day. What the conditions will be like in seven or ten years' time, I do not know. I am not referring to those periods.

2465. Now, certain figures have been put to you in regard to the use of drills, and you were asked whether the use of drills would increase the number of white men. The figures put forward, I think were, hammermen 1 to 25, and machine drills 1 to 10. Does that arise from the increase in the number of whites or the decrease in the number of natives? I will put it in this way: assuming it were possible to work drills everywhere in every mine, would that reduce the number of your native boys?—I have given Mr. Warriner's indication that the saving would be something like 30,000 natives.

2466. What percentage would that be? Does that tally in regard to the figures of 25 and 10?—I do not know whether the ratio can be applied. One man can supervise 25 natives on hammers, but he could not supervise many more than ten on machines on the average.

2467. But you cannot tell me whether the reduction of boys on machine work is commensurate with those figures? I mean what is the productivity of a boy working on a drill as compared with hammers?—Approximately, you can take it like this. A boy breaks an average of, say, ·8 of a ton per shift on hammers. One machine, at which an average of 2½ boys are working, will break, taking the mean of large and small machines, say, 8 tons. So you have 2½ boys breaking 8 tons on machines as against one boy breaking ·8 of a ton with hammers. The ratio would be about four to one.

2468. Then it seems there would be some increase in white labour?—There would certainly be an increase, not only through this ratio—that would not be the only thing—but through the fact that you could work on a much more extensive scale.

2469. You say the Government is proposing to abolish all advances to storekeepers. Have the storekeepers power to get the wages of these recruited boys attached for their debts?—No.

2470. Could you tell us how the Government and public opinion views such a proposal as that put forward by Surgeon-General Gorgas?—The matter has not been discussed with the Government yet. But his report, as far as native villages are concerned, seems to be quite on commonsense lines.

2471. You say that the shortness of time for which these boys engage militates very much against their efficiency, but can you say, in the case of a boy who returns to this employment, after having taken a holiday, so to speak, how his physical efficiency is kept up? Does it deteriorate after a long period of service?—Possibly.

2472. And they are rehabilitated, so to speak, by a visit to their kraals, and they are more efficient physically when they come back after a rest?—Yes, I think so, especialy in the case of boys working underground in the dust. I think it is most desirable that they should go away for a time, just as it is most desirable that white men should go away sometimes, although the conditions now are infinitely better than they used to be.

2473. But, generally speaking, can the loss of working efficiency be made up by the increased physical efficiency arising from this change and rest?—Yes. And I think, if you had these proposed villages, and a certain number of underground boys located in the villages near the mines, it might be possible to let these boys off work for a certain period every year to give them the necessary rest.

2474. So that the shortness of their term is not an unmixed evil?—No, particularly for the kind of boy who may have been working at unhealthy work.

2475. Now, I gather from what you say, there are powerful trade influences working in regard to liquor?—Yes, the liquor influence is powerful all over the world.

2476. And I also gather from your evidence that, having regard to the great evils of this traffic and the mischief done to the native himself, and also to the social dangers that there are from giving these people drink, that you are in favour of total abolition of liquor? I mean to say, you would go so far?—Yes, I think we should work in that direction. You cannot, of course, do that to-day: you cannot go so far—you must have public opinion with you.

2477. You are of opinion that, having regard to the class of outrage that might be committed and the consequent reprisals that must inevitably result, this is a sacrifice or deprivation that the whole community might very reasonably be asked to make?—Yes. The Commission which was appointed to enquire into what was known as the "Black Peril"*: recommended the closed compound system, which would, of course, have the same effect as total prohibition.

2478. At any rate, sooner than having to resort to lynching and such like measures, you think that the white community might fairly be asked to agree to deprive themselves of the privilege of purchasing liquor?—Surely, if they have to weigh on the one hand the honour of their women and, on the other, the attraction of their drink, they will have no hesitation in deciding which is the best course to take.

Mr. S. A. M. Pritchard, Director of Native Labour, called and examined.

2479. **(Chairman.)** You are Director of Native Labour?—Yes.

2480. You have been good enough to prepare a memorandum for the Commission. I do not think we need trouble you to read it, but I should like to ask you certain questions in elucidation of various points.

The following is the statement furnished to the Commission by the witness:—

Report of Economic Commission.

I agree with conclusions Nos. 7, 8, and 9 of the Economic Commission* as they appear on page 69 of the report.

"(7) Complaints on the part of the natives as regards wages on the Witwatersrand are common, and the system of the maximum average wage prevailing there is especially objected to."

"(8) The productivity of the natives could be increased by giving more attention to the organisation of their work, and, where it is possible, adopting more generally the piece-rate system, particularly on the Witwatersrand Gold Mines."

"(9) In the skilled trades the competition of natives and Indians is negligible, and the white skilled artisans do not appear to be losing ground as a result of the competition of coloured people."

Surgeon-General Gorgas's Report.

I support General Gorgas's recommendation as to the desirability of establishing native villages in mining areas wherever practicable.

The Department will be prepared, if necessary, to amend the Native Labour Regulations governing the accommodation to be provided for native labourers in order to enable employers to give effect to General Gorgas's recommendations in this respect.

With regard to General Gorgas's recommendations as to diet and other matters, support as above indicated will be given by the Department to employers.

Wages.

Average wages paid per shift to native labourers by mining companies affiliated to the Chamber of Mines:—

	s.	d.
Gold Mines (Witwatersrand Area)	1	11
,, (Outside Districts) ...	1	7½
Coal Mines	1	6·4
Diamond Mines	3	0

* U. G. No. 12, 1914.

* See "Union of South Africa. Report of the Commission appointed to enquire into Assaults on Women." U. G. 39, 1913.

Particulars as to Recruitment and Employment of Native Labourers on Diamond Mines.

Premier Diamond Mine.

(1) Average number of natives employed during 1913 14,548

(2) Average wages per shift paid to native labourers ... ... 3*s.*

(3) Average sum spent per native per diem in Compound stores:—
(*a*) for purchase of food-stuffs, 11*d.*
(*b*) other articles... ... 8*d.* } 1*s.* 7*d.*

(4) Total remittances made by or on behalf of native labourers during 1913 ... ... 15,617*l.*

(5) Number of natives recruited during 1913 16,215

(6) Number of voluntary natives ... 5,671
(or 25·9 per cent. of natives engaged)

(7) Total cost of recruiting during 1913 60,552*l.* or 2*l.* 15*s.* per native.

The Company has recently reorganised its recruiting arrangements and now employs only one actual recruiter, salaried employees being stationed at various places to provide facilities to natives desirous of being employed on the mine.

(8) Of the total cost of recruiting during 1913 (60,552*l.*) 7,900*l.* was paid in bonuses. (A bonus of 1*l.* is paid to voluntary labourers on their arrival at the mine, and to all natives on renewing their contracts for a period of three months.)

The Premier Diamond Mine has little difficulty in securing native labour as compared with that experienced by most gold-mining companies. I attribute this to the following reasons, among others:—

(*a*) The short period of contract (3 months).
N.B.—It is noteworthy that whereas the original contract is for 3 months only, the average duration of the stay of a native labourer is 5½ months.

(*b*) Attractive nature of work (open workings).

(*c*) The reputation of the mine for liberal and sympathetic treatment of native labourers.

(*d*) The good wages, with the "sporting chance" of earning a considerable commission on diamonds found.

(*e*) System of bonuses paid to voluntary labourers and those re-engaging.

(*f*) Arrangement whereby natives are allowed to ration themselves.

De Beers Consolidated Mines.

(1) Average number of labourers employed during 1913:—
Natives 14,018
Coloured Persons ... 1,020
Convicts 1,353
16,391

(2) Average wages per shift paid to native labourers ... ... 3*s.* 4·92*d.*

(3) Average sum spent per native per diem in Compound stores:—
(*a*) purchase of food-stuffs, 9½*d.*
(*b*) other articles ... ... 4*d.* } 1*s.* 1½*d.*

(4) Total remittances made by or on behalf of native labourers during 1913 ... ... 91,218*l.*

(5) Number of natives recruited during 1913 4,449

(6) Number of voluntary natives... ... 35,421

(7) Total cost of recruiting during 1913... 1,547*l.*

In reply to the enquiry as to how it is that De Beers experiences no difficulty in securing native labour, the Protector of Natives at Kimberley makes the following statement:—

"'Root of De Beers' attractions is well-known policy manifested in performance rather than protestation; far more flexible Compound administration; police-boy persecution not present; persistent loafers dismissed, not prosecuted; easy employment found for victims of accidents; large rewards for valuable stones."

Mortality from Diseases among Native Labourers employed on Mines and Works in the Transvaal, for the Year ended 31st December, 1913.

The following is a statement showing the mortality from disease among native labourers from various districts employed on mines and works in the proclaimed labour districts of the Transvaal (exclusive of those employed by contractors on mines and works) during 1913:—

Territory.	Average No. of Labourers employed.	Percentage of Total.	Pneumonia.		Miners' Phthisis (Silicosis).		Pulmonary Tuberculosis.		Other causes.		Total.	
			No. of Deaths.	Rate per 1,000 p.a.	No. of Deaths	Rate per 1,000 p.a.	No. of Deaths.	Rate per 1,000 p.a.	No. of Deaths.	Rate per 1,000 p.a.	No. of Deaths.	Rate per 1,000 p.a.
Portuguese Territories—												
East Coast, South of Latitude 22° South.	73,366	34·3	724	9·87	124	1·69	382	5·21	803	10·91	2,033	27·71
Beira and Chinde	93	—	1	10·75	—	—	1	10·75	—	—	2	21·51
Mozambique	8,429	3·9	174	20·64	2	·24	27	3·20	115	13·65	318	37·73
Nyasa	3,879	1·8	118	30·98	—	—	16	4·20	62	16·28	196	51·46
Zambesia, Quilimane, and Tete ..	4,334	2·0	108	24·92	—	—	21	4·85	71	16·37	200	46·15
Portuguese Territories ..	90,031	42·1	1,125	12·50	126	1·40	447	4·96	1,051	11·67	2,749	30·53
Union of South Africa—												
Cape Province	62,621	29·3	237	3·78	9	·14	96	1·53	344	5·50	686	10·95
Natal and Zululand	16,249	7·6	84	5·17	2	·12	34	2·09	82	5·05	202	12·43
Orange Free State	1,063	·5	4	3·76	—	—	2	1·88	7	6·59	13	12·23
Transvaal	22,956	10·7	117	5·10	8	·35	48	2·09	132	5·85	305	13·29
Union of South Africa ..	102,889	48·1	442	4·30	19	·18	180	1·75	565	5·49	1,206	11·72
Other British Territories—												
Basutoland	11,041	5·2	68	6·16	3	·27	18	1·63	97	8·76	186	16·85
Bechuanaland Protectorate ..	3,226	1·5	38	11·78	1	·31	14	4·34	39	12·10	92	28·53
British Nyasaland Protectorate ..	1,110	·5	29	26·13	2	1·80	7	6·31	18	16·21	56	50·45
Northern Rhodesia	50	—	1	20·00	—	—	—	—	—	—	1	20·00
Southern Rhodesia	1,569	·7	31	19·76	—	—	7	4·46	24	15·32	62	39·54
Swaziland	3,969	1·9	36	9·07	1	·25	4	1·01	17	4·28	58	14·61
Other British Territories ..	20,965	9·8	203	9·68	7	·33	50	2·38	195	8·32	455	21·71
Others—												
German South-West Africa ..	105	—	1	9·52	—	—	2	19·05	—	—	3	28·57
Unclassified	39	—	—	—	—	—	—	—	—	—	—	—
Others	144	·1	1	6·94	—	—	2	13·89	—	—	3	20·83
Totals	214,029	100	1,771	8·27	152	·71	679	3·17	1,811	8·47	4,413	20·62

Position of Coal Mines.

The average number of native labourers employed in the Labour Districts of the Transvaal during the month of February, 1914, was 10,020. Of this number, 8,950 were natives from Portuguese East Africa and 1,032 natives from British South Africa.

Coal-mining is not only the worst paid, but also probably the least popular, form of mining employment among native labourers.

The coal mines affiliated to the Witwatersrand Native Labour Association receive allotments of East Coast labour up to 80 per cent. of their complements.

Recruiting of Native Labour for Mining Industry.

(1) By whom conducted and results of operations during 1913.
(2) Opposition of Department to present system on grounds that:
  (*a*) it is demoralising to natives and Europeans;
  (*b*) it is unnecessary;
  (*c*) it interferes with the outflow of voluntary labour which, in the interests of all concerned, should be fostered;
  (*d*) it establishes a monopoly for wealthier employers;
  (*e*) it is in the hands of traders and bound up with trading.
(3) System of making advances to natives on their recruitment.
(4) Undermining of the influence of Government and possibility of traders obtaining power to control labour supply and dictate terms.
(5) Duty of Government to remove all artificial aids to creation of monopoly.
(6) Provisions of recruiting laws.

Closed Compounds.

I favour the closed compound as against the open compound system wherever this arrangement may be practicable.

I am of opinion, however, that the introduction of the former system on the Witwatersrand is impracticable.

Appointment of Commissioner to Investigate Grievances of Natives employed on Mines in the Witwatersrand Area, &c.

In August of last year Mr. H. O. Buckle, Resident Magistrate, Johannesburg, was appointed a Commissioner for the following purposes:—

(1) To investigate the conditions under which natives are engaged for and employed on the mines of the Witwatersrand, and if any grievances or abuses are found to exist to make recommendations with a view to the removal thereof.
(2) To enquire into the control capable of being exercised over natives housed in compounds in the Witwatersrand area, and to make recommendations as to what measures should be taken with a view to safeguarding life and property in the event of any industrial unrest or disturbance.

Mr. Buckle has almost completed his enquiries as far as the Witwatersrand is concerned, and is at present visiting the Native Territories of the Cape Province with a view to taking further evidence, more particularly on the question of recruiting.

2480A. **(Chairman.)** You say that complaints on the part of natives as regards wages on the Witwatersrand are common, and the system of maximum average wage prevailing is especially objected to. What does the native desire—a change of system or merely an increase in pay?—The native desires an increase of pay, which to a very great extent would necessitate a change of system.

2481. A change of system in the direction of giving him more results for definite work—giving him greater scope—that is, to the more diligent?—Yes.

2482. And if the more diligent get more money, does he object to the less diligent getting less?—I do not think he thinks about that very much.

2483. But he wants his pay to be based upon piecework or results?—The native is usually recruited on the understanding that he will be paid according to his strength—that is, according to his capacity—and when he comes here he finds it is not so, particularly since the recent introduction of what is known now as the maximum average wage. The contract system, where it is in operation, is a system that appeals to natives; they work more satisfactorily, and the results are good. I believe that if the contract or piece rate system were to be extended the mining industry would have immeasurably better results from the native labour force than they have to-day. There can be no doubt that the efficiency of the native labourer has increased of recent years, but there is plenty of room yet for improvement. If the opportunity is given to them, their efficiency will further improve and the mining industry will be enabled to rely upon a much more contented and efficient force of native labour, with the probable result that they will be able to do with less labourers than they employ in normal times.

2484. Then, the great culprit is the maximum average wage?—Yes.

2485. Why was that introduced?— I understand that it was introduced with a view to doing away with the immense competition for native labour existing among the mines. It was intended to standardise the wages, more or less, so that the richer mines could not compete against the poorer ones.

2486. It was introduced with a view to the settlement of differences between competing groups?—I believe so. May I say that I feel that it is essential in the interests of all concerned that greater scope be afforded the native labourer?

2487. Do you mean the opportunity of earning higher wages or doing superior work to that which he is now employed on?—The one is consequent upon the other. I recommend that he should be given the opportunity to earn higher wages by undertaking increased responsibilities.

2488. Do you propose to break down what is called the colour bar?—I do not go as far as that. I think the necessity for the breaking down of the colour bar is still a long way off. But there are many ways in which the scope of the native labourer can be increased beneficially to all concerned.

2489. Within the terms of the actual colour bar?—Yes.

2490. Can you particularise?—I mean within what is the native's proper sphere of labour as against the certificated sphere; mining certificates being granted only to persons, I believe, of European descent. For instance, they have important servants on the mines, such as indunas and those in charge of the natives in the compounds. They have boss boys underground. They have native clerks in the various offices; and they should have hospital attendants of a class and with qualifications fitting them for that very important work. In all these classes of work the native should be allowed scope, and I feel very strongly that the rate of wages attaching to these duties should be increased. Were this to be done—and, after all, it is only common justice to the native labourer, who is worthy of his hire—the mining industry would have a much more contented labour force. I believe it is economically sound and in the interests of the mines, and, certainly, from an administrative point of view, it is essential that something of this sort should be done. We have had our industrial troubles with Europeans, and during these troubles the natives have behaved remarkably well. They deserve very well at the hands of the white man of this country, and I think that if they are only fairly treated and given the opportunity of advancement when they are deserving of advancement, and are paid accordingly, it will do a great deal to break down any reasons that they may have for giving trouble at a later date. During July of last year the native was a very interested spectator of the trouble arising from the European strike; during, and particularly towards the end of, the strike they themselves were considerably unsettled, and on the 8th July, 1913, at four mines in the Johannesburg district they struck work and demanded higher wages. We were, fortunately, able to deal with them, through having a force of military and police at our disposal, but there can be no doubt that the clock has been put on a number of years so far as the native mind is concerned. The native realises more and more to-day that he is the

true labourer of this country, and he cannot understand why the white man, who is so largely entrusted with the work of supervision, should be paid such comparatively high wages. There is a great deal to be said from the native's point of view, and I believe that if the mining industry approach the position in a generous manner, they will certainly profit in that the native will benefit and will become a much more contented and efficient labourer.

2491. What do you say about the native living in locations here and remaining longer at his work?—Do you refer to the recommendations of General Gorgas?

2492. Yes.—I strongly support General Gorgas's recommendation as to the desirability of establishing native villages wherever practicable. In certain areas—and particularly on the Central Rand—I do not think the suggestion would be practicable. If these locations were properly supervised, you would have the natives living there in considerable numbers and for lengthy periods, and you would consequently have a more permanent labour force.

2493. In your memorandum you give the average wages paid per shift to native labourers, but I do not think your comparison is quite fair, because in the case of the gold mines you have to add the food, which on the diamond mines is not supplied to the natives?—That is so; I regret that omission.

2494. What do you estimate the value of feeding a man per day to be?—I believe the actual cost to the mining industry is, approximately, 6*d*. per day. At the Premier Mine, where the natives feed themselves, the average sum estimated to be spent by each native labourer for the purchase of foodstuffs was 11*d*. per day. At De Beers it was 9½*d*. It will be understood that the natives on those mines purchase luxuries to a considerable extent. The food which is supplied to-day by the mines on the Rand is very good indeed.

2495. Outside the rations which the natives get, do they spend very much in the way of luxuries and in the way of eatables?—They buy a considerable amount of foodstuffs and other goods from the various concession stores up and down the Reef, but to what extent, of course, it is difficult to say.

2496. We have been told that the illicit liquor traffic is large and is increasing. Can you give any views about that?—That is also a difficult matter to give anything in the nature of a definite opinion about. Diverse opinions are held by those who are qualified to judge, as to whether there has been any increase in the traffic, but figures recently supplied to me by the Department of Police would appear to show that there was a decrease during 1913 in cases of Europeans charged with selling liquor to natives and in the case of drunkenness among natives.

2497. Have you the figures?—No, but I can supply them.* I am informed that there has been a substantial decrease in the number of convictions of natives for being in possession of European liquors, as distinguished from native liquors. It is also significant that during the year 1912, as compared with 1911, 44,394 gallons less of Cape brandy were imported into the Transvaal; while the information supplied by the police authorities would appear to show that the returns for 1913 may be anticipated to show a further decrease. The figures which I have quoted refer chiefly to the illicit liquor traffic in European liquors, but we have had a great deal of difficulty in dealing with the brewing of native liquors in compounds, and our experience has shown us that not only is the matter one that demands very careful attention, but that preventive measures must be taken immediately to stop the very considerable increase that there has been recently in the brewing of a liquor on the mines called "khali." This is a native liquor which is composed of golden syrup, pearl barley, a root that we have not been able to identify, and water. My experience has been that where we have had trouble with natives in the way of faction fights and disturbances we have usually had clear proof that the natives have been drinking "khali" to a considerable extent. I was furnished with some figures recently showing the increase in the importation of golden syrup into the Union of South Africa. In the year 1910 9,542,336 lbs. of golden syrup, valued at 91,000*l*. odd, were imported into the Union. During 1912 it increased to 14,505,937 pounds weight, and until recently has been increasing. It is known that an immense quantity of golden syrup has until recently been retailed to the native labourers on the mines by the storekeepers up and down the Reef. During the industrial disturbances of 1914, in order to prevent, or to take precautions against, any possible outbreak on the part of the natives, we, in conjunction with the police, arranged that the sale of golden syrup should as far as possible be restricted and its importation into the compounds should be prohibited. The decrease in the drunkenness which resulted from this measure was so marked that it was decided that more control could be, and should be, exercised by compound managers, who are responsible for the natives of the compounds, over the brewing of this liquor. This has been done by circular, and although but a short time has elapsed since the issue of these instructions, the reports that I have received from the Inspectors of Native Labour and from the police and mine officials are all to the effect that the morale and general health of the native labourers have improved and that their efficiency has noticeably increased, while, on the other hand, there has been a substantial decrease in drunkenness, assaults, and other occurrences which in the past had been quite common.

2498. And this improvement you attribute to the prohibition of the importation into the compounds of golden syrup?—Yes.

2499. Now regarding the recruiting of native labour for the mining industry, what is your general view of the system adopted and the system which might be adopted?—At the present time the recruiting of native labour for the mines is in the hands of the Witwatersrand Native Labour Association, who have a monopoly of recruiting in Portuguese East Africa, and the Native Recruiting Corporation, to whom is entrusted the major portion of the recruiting of native labour from British South Africa. There are also certain contractors, the more important of whom are Messrs. Mostert, Marwick and Morris, Mackenzie and Hadley. They supply a considerable quantum of the native labour, and are usually paid therefor on a shift basis as against so much in the way of capitation fees at the time the labour is recruited. During the year 1913, taking the Cape Province alone, there was a monthly average of 1,051 Europeans engaged in recruiting native labour. They were assisted by 827 natives employed as runners. The average number of native labourers collected monthly by these agents in the Cape Province was 5,027, or an average of 4·8 labourers monthly by each European in possession of a licence, or, including the runners, 2·7 per individual. In the remaining Provinces, where recruiting is carried on to a lesser extent, 293 labour agents were operating monthly, with approximately similar results. I am very strongly opposed to the present system of recruiting. I hold that the number of agents operating in the native districts is demoralising alike to Europeans and to the natives themselves. I may say that in making these remarks I am confining myself exclusively to recruiting in British South Africa—I do not think that recruiting on the present lines is necessary in British South Africa, more particularly since the majority of the

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* The witness subsequently furnished the following statement:—

LIQUOR LAW.

Convictions in the Transvaal during the years ending 31st December, 1912 and 31st December, 1913.

		1912.	1913.		
Possession of Liquor:—					
Kaffir Beer	...	2,412	2,742	Increase	330
Other Liquor	...	3,655	3,117	Decrease	538
Total	...	6,067	5,859	Total Decrease of	208
Sales to Coloured persons:—					
By Whites	...	970	757	Decrease	213
By Coloured	...	656	555	Decrease	101
Total	...	1,626	1,312	Total Decrease of	314
Drunkenness:—					
Coloured...	...	5,295	4,608	Decrease	687
Total	...	12,988	11,779	Decrease ...	... 1,209

mines have combined under a central recruiting organisation. I am in favour of the establishment of forwarding agents, as against the large force of recruiting agents, and I believe that such a policy would result in no permanent reduction in the supply of native labour and would certainly tend towards the increase of voluntary labour, in addition to which might be anticipated a very large reduction in recruiting costs. It is possible that some temporary dislocation might result, but I hope to be able to show that the position is one that is very serious from every point of view and that it is necessary that it should be faced. At the present time, owing to the high capitation fees, the system of giving advances to natives, and the number of recruiters employed by the mining industry (almost every potential recruiter in the native territory being in the employ of the mining industry or its representatives), recruiting in British South Africa constitutes a monopoly for the large employers of labour with large capital. The smaller employers have no chance of competing, and so a fair division of the available native labour supply among the various industries of the Union is frustrated. In this connection I may state that some 80 per cent. of the recruiters in the Cape Province are traders. The results of their operations, as I have quoted, tend to show that they are in this business not so much for the purpose of securing the profit accruing from native recruiting, as for the purpose of making recruiting an aid to successful trading operations. The only other apparent reason for the employment of this large number of agents is in order to stifle competition. The chief obstacle to a voluntary system is the granting of advances. The majority of the natives now coming forward have previously worked on the mines and would proceed voluntarily to the mines if only transport facilities were available, and if the influence of the labour agent, with the additional inducement of the advance, were not present. I regard a large proportion of these natives coming forward within the Union to-day as intercepted natives much more than recruited natives. The expenses of recruiting to-day, with the advance, limited as it is to 2*l.*, are very high and can only be borne by the wealthier employers of labour, but the increase of the advance to 5*l.*, which is now being strongly advocated, will make the position much worse and strengthen the monopoly that is to-day enjoyed by the rich. To put it briefly, the main objections to the existing methods of recruiting, so far as they effect the natives themselves, are, first, the tendency to encourage extravagance by anticipating earnings and keeping them in perpetual debt to the traders; the unfavourable position of the recruited native, as compared with the voluntary labourer, the latter being invariably in a position to choose his employer and his class of work, and generally to make terms; and the further difficulty that the recruited native experiences in obtaining release from his contract, whether after illness or for any other reason, the employer being chary of granting such release unless the whole or a portion of the expenses incurred in recruiting are made good to him. This latter difficulty is one which has been brought to our notice considerably in the last few months. Then there is the tendency to encourage fraud by natives in securing advances from one or more labour agents without any intention of proceeding to work. On the other hand, the voluntary system of labour, combined, as I recommend, with a system of deferred pay or regular remittances, while removing these objections, would in addition reap the following advantages both to the natives and the traders who are so largely interested in this business. It would enable better provision to be made for the families of absentees, who are at the best but ill provided for by an advance of 2*l.* (the labourer generally regarding the handing over of this amount as a sufficient discharge of his obligations towards them), and are dependent on the credit allowed by the trader, the potential labour value of the absentee or his relatives being regarded as security for the granting of such credit. It would bring about an increased diffusion of money within the Native Territories and the reconstruction of trade on a cash instead of a credit basis as at the present time, while it would largely do away with the tendency on the part of the natives to break away from the parental control by limiting their spending powers at the place of employment where, in Johannesburg particularly, they are peculiarly liable to temptations. I recommend the total abolition of the advance system and the substitution therefor of a voluntary system of deferred pay. It was reported —and we regard this as a particularly serious feature of the whole position—that it is all tending towards the belittling of the influence of the Government. There is very little doubt that the present methods also are enabling traders to get such a grip of the native population, particularly in the native areas of the Cape Province, that we are actually threatened with a combination of traders to control the output of native labour. It is difficult to vouch for the truth of these reports, but it is quite conceivable, I submit, that such a position might easily arise, the position being that the mining industry have, as I say, practically a monopoly of recruiting and have placed all their eggs in one basket. It is quite clear that the Government cannot interfere with legitimate competition in attracting native labour; the influences of better pay, better treatment, and better conditions of work generally will always operate. But I feel strongly that the Government should not associate itself with any artificial aids which have the effect of throwing the labour into the hands of the wealthy employers. Lastly, from the point of view of native administration, I think the position is utterly bad. It may be that the mining industry, if the Government forces this position, will have to face a temporary dislocation, but in the interests of native administration I hold that the Government will be wrongly advised if they do otherwise than insist on the position being faced.

2500. You mean the necessity of abandoning the recruiting system?—Yes, the necessity of abandoning the recruiting system as it exists to-day.

2501. What does the native cost on an average to the Company when he gets here—the recruited native? —The Native Labour Association and the Recruiting Corporation are in a much better position to give information on that point.

2502. You have no figure of the total cost of recruiting operations?—I understand that it approximates to 6*d.* per shift.

2503. Which is, therefore, 25 per cent. of the remuneration of the native?—Yes.

2504. Now you say in your statement that you favour the closed compound as against the open compound,—but you regard the introduction of the closed compound here as impracticable?—Yes.

2505. Can you give the reasons for that view?—In central Johannesburg, particularly, I think that the closed compound would be impracticable, geographically speaking, as it would also be in other parts where the shafts are at such considerable distances from the compounds. The fencing in and guarding of the compounds would be an enormous undertaking. If only the compounds were fenced in and the natives were allowed to go out to work without a guard or escort the object in view would largely be defeated. Feeling, as I do, that any partial measures would be ineffective, I do not recommend the introduction here of the closed compound.

2506. Does the native prefer it or not?—It is difficult to say. Certainly, where they have had experience of the closed compounds, such as at De Beers and the Premier Mine, the natives apparently like it. In my statement I quote figures showing that at De Beers, whereas during the year 1913 they only recruited 4,449 natives, 35,421 natives went there for employment voluntarily. I also know that in Basutoland employment at De Beers is so popular as to induce the natives actually to pay the representatives of the De Beers Company certain sums of money to enable them to be sent there. At the Premier Mine 25·9 per cent. of the natives engaged by that Company during the year 1913 were voluntary natives. They have recently re-organised their recruiting organisation and now employ only one recruiter. In other parts they have salaried employees, whose duty it is to afford facilities for natives to proceed to the mine work. It is such a system that I recommend as against the present recruiting system.

2507. **(Mr. Lorimer.)** You say that coal-mining is not only the worst paid, but also probably the least popular, form of mining among native labourers. How does the coal mine get any employees at all if the gold mines have not got enough for their requirements?—By arrangement with the Witwatersrand Native Labour Association the collieries receive allotments of Portuguese East African labour up to 80 per cent. of their complements.

2508. Do the men who work in the collieries mostly come from the East Coast?—85·72 per cent. of the natives at present employed in coal mines are from Portuguese East Africa.

2509. Are these men, when they leave home, told that they are going to this poorly-paid work?—No.

2510. Are they told what wages they will get?—The contract with the Portuguese native provides for a minimum wage of 1*s.* 6*d.* per shift.

2511. Then the coal owners must have a certain percentage of other labour than East Coast, if the latter represents only 85 per cent. That leaves over 14 per cent. to be obtained from elsewhere?—Yes. They come from British South Africa.

2512. What are these men told in regard to their wages?—They are recruited specifically for the coal mines at the specified rates of pay.

2513. And the rate is fixed: they know that before they leave home?—Yes.

2514. You said at the beginning of your evidence that the native is beginning to think that he is the real producer, and, not unnaturally, wants more wages?—Yes.

2515. Well, roughly speaking, I think 1*d.* per day increase would be equal to 1,000*l.* odd in higher wages?—Yes.

2516. And 6*d.* a day would therefore amount to more than one and three-quarter millions a year?—Yes.

2517. Now that, of course, would be a pretty considerable inroad on the profits of the Rand mines. Are you of opinion that that could be got back by greater efficiency and by greater use of rock-drills, and by general improvement of organisation?—I would prefer to confine my evidence to the conserving of native labour. I am not in a position to give evidence as to how much labour you could save by such devices as rock-drills and so on. I believe, however, that the efficiency of the native can be substantially increased if an incentive be provided, that is, an increased wage. If that be done a considerable number of natives might be dispensed with.

2518. **(Mr. Tatlow.)** You are not at all in favour of the recruiting system?—No.

2519. But do you think it will ever be possible to do without it?—How do you interpret recruiting system? What do you mean by recruiting?

2520. I mean sending out men to engage labour by offering certain inducements.—I am perfectly confident that you can do away with what I call touting for labour, provided that you provide facilities, through paid employees of the mining industry at the various centres where these labourers come from, to enable the natives to come here to work.

2521. And give no other inducements?—No.

2522. And make fair representations to them as to what they are to earn?—Yes. You will see from the figures that some 75 per cent. of the labourers that are coming forward are natives who have been here before. The only other employers in the Cape Province employing a considerable amount of native labour are the railways and harbours, and they will always have their quantum of labour. But even after giving them their requirements there still is sufficient labour available for the requirements of the mining industry without the necessity of recruiters scrambling and tumbling over each other to collect natives at the rate of two per month.

2523. What is that system of voluntary deferred pay to which you referred as being a great advantage if it was carried out?—The employers will arrange that it be provided in the contract that so much of the wages earned shall be payable at the place of employment and the balance on the native's return home.

2524. Not paying until he returns home?—No.

2525. I see in your statement in regard to the Premier Mine that "the average number of natives employed in 1913 was 14,548, and the total remittances made by us on behalf of the native labourers that year was 15,617*l.*" That seems a very low amount to remit?—Yes. The natives' moneys go home in various ways. They take it home, and they are very secretive as to what they have in their purses. They send it home by friends returning, and also send it through Departmental Remittance Agencies. The natives employed on other mines sometimes remit their earnings through their employer, others through the agency of the Native Affairs Department, but not to any great extent, while a considerable sum is remitted annually through the Post Office.

2526. Then this does not really represent what is sent home?—It certainly does not represent more than a fraction of what reaches home.

2527. It does not convey any idea to one's mind as to what they do remit?—That is so.

2528–9. But have you any knowledge at all of what the average is which they remit home?—It is estimated that the native from British South Africa, having completed nine tickets of thirty shifts each, takes home something between 10*l.* and 15*l.* But opinions differ considerably on this question.

2530. It can only be a wide sort of estimate, I suppose?—Yes.

2531. You spoke of more transport facilities being necessary. What was in your mind in regard to that?—The native, as a rule, when he wants to come out to work is not in a position to pay his railway fare. With the extension of the railways throughout the native territories, no native kraal is at too great a distance from the railway for the native to "foot it" to an entraining centre, and, if at these places there were representatives of the mining industry ready to receive and house them until their contracts were entered into, put them on to the train, pay their railway fares and give them food for the journey, I hold that that is all that is necessary.

2532. It was not that you thought that anything was wanting on the part of the Railway Department in not providing proper fares?—No.

2533. **(Mr. Garnett.)** With regard to this illicit brewing in the compounds, is that a matter of compound oversight or supervision?—Yes, it is; it is within the compound manager's supervision.

2534. We had it in evidence that many people favour very much the great restriction of the sale of liquor—even to the extent of local option and even total prohibition—have you anything to say from that point of view?—At present I do not care to go further than to recommend the issue of kaffir beer to the natives in the compounds. It is a well-known native drink, particularly in the Union, and it is not only a beverage, it is a food. It is also a recognised anti-scorbutic. In Durban the municipality has established native restaurants where kaffir beer is sold The result has been that drunkenness among natives in Durban has largely decreased. The municipality there has caused to be compiled very complete returns covering the period before and since the adoption of this policy, and these returns show a most noticeable reduction in drunkenness and petty crime resulting from drunkenness.

2535. Apart from the supply of that liquor then, you favour very stringent restrictions of any other liquors?—I am not in favour of the sale of any other liquor to natives.

2536. Would you go so far as to favour local option in the matter?—No.

2537. Then while you are strongly against the recruiting agent, you are strongly in favour of the forwarding agency system. May I ask if you would define the character of the agency that you would set up; I suppose they would be for the purpose of assisting voluntary natives to come to the mines?—As a rule, agents probably would be stationed at or near the entraining centres. Their offices would be made known to the natives by a system of runners, no doubt, and the natives would know when they were ready to go out to work that they had only to proceed to the nearest entraining centre and apply at the office for assistance to enable them to come here for work. I refer to these as forwarding agents as distinct from the touts and recruiters of to-day, who collect their natives through runners and also through such bait as, for instance, an advance of cash or food.

2538. Then with the knowledge that is spread by the natives who return home from the mines as to the facilities for entraining and so forth, you think the recruiting agent might be very largely abolished?—I do. That is a very important point. The best recruiter that the mining industry can have is the returning native. If he can go home and spread good reports as to his treatment generally, it will benefit the mining industry to an extent far beyond that obtained by the employment of a number of touts. I believe that if the leaders of the mining industry applied themselves to the betterment of conditions here, particularly with regard to the wages of natives and towards affording more scope to the native labourer to advance, they would largely get over the difficulty of getting labour.

2539. You said that smaller employers had no chance of getting natives distributed among them, and the various industries of the country were suffering very much from this. Do you mean that the general body of employers outside the great organised industry of mining suffer?—Employers of labour all through South Africa feel the pinch in regard to the supply of native labour. The various industries of Natal are suffering, although I hold that it has been largely Natal's own fault in the past. Natal, in the past, has relied too completely on indentured Indian labour, and has not made any attempt to provide even a nucleus of native labour in its own territory from its own resources. In some cases the people in Natal have actually encouraged the Rand to invade them and establish recruiting agencies in various parts. The result has been that to-day the people of Natal are crying out for labour, but they find the Rand firmly established and getting labour when their industries are starving. I have frequently been approached here by contractors on irrigation works to assist them in procuring native labour. They find it impossible to collect it, and the farmers are in similar straits. I frankly admit that they will always find a difficulty in competing with a strong industry like the mining industry, and unless they can put up their wages to approximately those paid by the mining industry here, they will have a very poor chance of competing. But I strongly oppose any artificial aids necessitating capital. It comes to this. If this advance is put up to 5*l.*, an employer requiring 500 natives will require to have capital to the extent of 2,500*l.* at his back, in addition to having to pay the present high capitation fees.

2540. Is your general conclusion then that this present system is at once exceedingly expensive to the mining industry, and results in a general barring of labour for every other industry in the country?—That is the effect.

2541. **(Sir Alfred Bateman.)** You have put in a very interesting table of statistics about the mortality from disease last year. Now, in the rate per thousand, the figures differ immensely according to the places from whence the natives come?—Yes.

2542. Are the figures large enough for you to have confidence in them? From Nyassaland and Zambesia the figures are very high, in the former case being 51½ per thousand and in the latter 46 per thousand. In the Union it goes down to twelve and thirteen. Do you think that fairly represents the usual rates?—Yes, the death-rate among natives from tropical areas has always been considerably higher than that among natives from places within the Union.

2543. But, altogether, it works out to something like 20 or 21?—20·6 per thousand.

2544. How do you think that compares with the normal mortality among natives?—Considering, as General Gorgas pointed out, that you are dealing with adult and selected natives, it is high.

2545. If we had a selected population at home at those ages it would be something like six or seven per thousand?—Yes.

2546. I do not think you have the death-rates for natives in their own homes?—I do not think any reliable statistics on the point are available.

2547. Have you formed any idea as to whether there is much difference?—I could not say. This death-rate of 20·6 is the lowest we have had.

2548. But this, as General Gorgas said, is for picked lives?—Yes.

2549. Now, in regard to saving recruiting fees, which you said amounted to something like 6*d.* per shift?—Yes.

2550. Would the mines be able to give that to the native? Would the natives get anything out of it if the recruiting were abolished?—If the mines were to reduce their recruiting expenses substantially they might apply a portion of that saving towards the increase of the native wages. That is the way the native approaches the position.

2551. Does the native know that?—Yes. I do not say that the average native does, but the more educated native is aware of it. In fact, they have made representations to the Department on these lines.

2552. Does the greater number now belong to trades unions?—I do not think so. They have an organization on the Rand which savours to a certain extent of trades unionism, but it is not strong.

2553. But you do not agree with the evidence laid before us last week that it may be described as semi-slavery—the employment of the native under the present conditions?—Certainly not. There is a good deal that still can be put right, generally speaking, but there is no doubt that the conditions of recruitment and employment of the native on the Rand have improved immensely.

2554. Nor would you agree, I suppose, with the policy of sending them back to their own countries and using white labour only?—Certainly not.

2555. One or two questions about the drink called khali: what is the alcoholic strength?—Curiously enough the alcoholic strength is comparatively low. After about 24 hours the alcoholic strength is about 1·7 per cent.

2556. Of absolute alcohol?—Yes.

2557. About three of what we call standard. You know the difference between absolute alcohol and what we call Sykes's. The proportion is about half absolute alcohol—that is what is called proof?—Yes. After about three to five days it increases in alcoholic strength to about five or six. That percentage is less than that of beer.

2558. Yes, Bass's beer is more than that, I think?—But we believe that this root has some narcotic influence on the native in addition to the intoxicating effect of the liquor.

2559. There is something mysterious about it?—Yes.

2560. Have you ever tried to get at the root of the root?—Yes, it is being investigated at present by the Government Analyst.

2561. It might be useful to send some of it to the Imperial Institute in London: they have a staff of qualified chemists who are always at work on these matters?—I will arrange for this to be done.

2562. What is the strength of kaffir beer?—As a rule about two per cent.

2563. Both of these drinks are brewed? It is fermentation and not distillation?—Yes.

2564. Is there distillation going on?—Practically none.

2565. I should have thought they would have found out about the tea kettle?—It is not unknown in Portuguese territory. The natives frequently distil there, but I have not heard of it here.

2566. The Portuguese native is supposed to get wine?—Yes.

2567. Do you think he is worse for it?—He is certainly no better.

2568. But is he worse?—I cannot say.

2569. But directly he comes here he has to do without it?—Yes.

2570. And he does not seem to suffer?—Their death-rate is higher than that of others, but I am not in a position to say that the physique of the Portuguese native is in any way impaired by drink.

2571. I understand you are rather against local option?—I would not go so far. The experience of the past two or three months has shown us what can be done with proper compound control towards preventing the importation into, and brewing of liquors in, the compounds.

2572. You do not think there should be such a heroic remedy as to stop it absolutely?—I do not think it is necessary.

2573. **(Mr. Sinclair.)** What is the reason that you suggest for business companies spending such large sums on recruiting natives under existing conditions unnecessarily?—I do not think that the leaders of the

mining industry have ever sufficiently investigated the matter. I feel that they have been badly advised from the outset.

2574. Surely there must be another side to the question besides that you have put. One can hardly conceive of business men spending such large amounts of money if it was unnecessary?—I have a return here which I think will throw some light on it.

2575. It would seem to be such a serious reflection on the business capacity of any company that adopted it, that some close explanation would appear to be called for?—In 1904, when Chinese were employed on the mines, 5,398 natives from the Cape Province were employed. At that time, the only recruiters in the Cape Province for the mining industry were the Witwatersrand Native Labour Association, which is really an off-shoot of the Chamber of Mines. When a decision was arrived at by the Government in 1907, I think it was, to repatriate the Chinese, it then became necessary for the mining industry to replace the Chinese from other parts. The Cape, in fact the Union as a whole, had not been exploited properly. They then went not only to the native territories of the Union, but also to tropical areas, and it can safely be said that the Chinese have been replaced by the natives that have come to the industry since from within South Africa. Whereas only some 5,000 were employed in 1904, less than nine years afterwards we had 79,000 employed from the Cape. The percentage of the total average employed in 1904 was: Cape natives 7·2, Portuguese East Africa natives, 69·2. In 1913 the Cape percentage had increased to 32·3 and all Portuguese East Africa, including tropical areas, 39·5. In getting out this labour there was very considerable competition. All the groups had their various runners and agents throughout these native territories. Individual mines in some cases had their own representatives, and the competition was enormous, and it is largely as a result of this competition that the very expensive system that exists to-day has come about. In October, 1912, the majority of the mines amalgamated under the Native Recruiting Corporation, and I understand that to some little extent they have been able to reduce their expenses, but very slightly. I think this is attributable to the fact that they have put all their eggs in one basket and have become dependent on the trader for their recruiting to such an extent that they now find it very difficult to get out of his hands—in fact, in my opinion, they are in his hands to-day. It is admitted by those who control the recruiting operations of the mining industry in the Cape that they have no control over their agents and that they dare not attempt to establish too openly a voluntary system, which is contrary to the interests of the trader-recruiters. They have practically placed a monopoly in the hands of these people.

2576. But a business man does not let the middleman run away with him like that?—That is the position to-day. The middleman has the grip of the situation.

2577. The maximum wage that you spoke of in the early part of your evidence was designed to standardize wages so that the richer mine would not have an advantage over the poorer. Now, although that may have tended to do justice as between the rich and the poor mine, it was justice, if it can be called justice, at the expense of the worker?—Yes.

2578. It lessens competition for his labour?—Yes.

2579. With regard to the decreased imports of illicit liquors that you referred to—brandy, I think—do you think that has been brought about or contributed to by the increased brewing that has gone on in the compounds?—It is difficult to say. I am told that at present the practical abolition of brewing in the compounds has resulted in an increase in the illicit traffic outside. I have attempted to get corroboration of this statement, but I have not been able to do so.

2580. Has the question of the illicit sales of liquor to either whites or natives come officially before you?—Yes.

2581. And is it your opinion that it obtains to any serious extent?—Yes.

2582. You are satisfied?—Yes.

2583. Is it your opinion that in the future the cost of labour—I am speaking more particularly of native labour—is bound to go up?—Do you mean the cost of procuring?

2584. The cost of the labour to the mine.—I think there will be a decrease in the cost of procuring native labour. There need be no substantial increase in the compound maintenance costs, but I believe that the wage will go up.

2585. The daily wage is what I want to get at?—Yes.

2586. You think it is bound to go up?—Yes.

2587. **(Mr. Garnett.)** As regards the death-rate, taking the natives from Mozambique, I see that 20·61 of the total proportion of 31·73 are due to pneumonia, and from Nyassaland 30·98 out of 51·46, and from Zambesia 24·92 out of 46·15 are due to the same cause. I suppose the great proportion of cases of this disease is due to the translation of the natives from their own country to this climate, and that they are always more predisposed to that disease?—Yes.

2588. **(Sir Alfred Bateman.)** You do not think it is due to losing the wine they are accustomed to?—No. I do not think so.

Mr. G. Nathan, representing the General Mining and Finance Corporation, called and examined.

2589. **(Chairman.)** You have sent in a memorandum to the Commission, for which we are obliged.

The Memorandum was as follows:—

I beg to submit hereunder my ideas with regard to the present system of working the mines of the Witwatersrand, and the best way in which a lasting improvement could be effected, *i.e.*, by a general amalgamation.

Since the beginning of the exploration of the gold-bearing strata of the Witwatersrand, it has been the custom to work smaller or larger claim areas through individual companies, which, though separate units, were controlled by the mining houses who formed these units into groups of administration. In the course of time the disadvantage of these methods to everybody concerned has manifested itself in so many directions that it would appear desirable to overcome so inefficient a system. The first attempts in this direction were made by amalgamating two or three separate companies, and in recent years by the fusion of larger numbers. The only method, however, of bringing about a basis of operation satisfactory to all concerned—shareholders, workmen, and country—viz., a general amalgamation of all the existing companies, has not been adopted, for reasons which, in my opinion, are either based on a lack of understanding of the position which would be created by such fusion, or which are absolutely outside the question of the economic working of these mines, *i.e.*, political party reasons. I do not propose to go further into details as to why the idea of a general amalgamation has not been carried into effect, but with your permission I will attempt to show the disadvantages of the present system, and the advantages which would obtain under the new system after amalgamation. I think for this purpose it will be best to begin with the administration of the mines. This has to be divided into two sections, that on the individual mines and that in the head offices. On each of the mines to-day there is a mine office, with its own staff, and although the individual concerns work to a certain degree under the direction of the head offices of the respective controlling groups, they do not operate on a general basis, but each tries to get small advantages over the other, which I have no hesitation in saying leads to unnecessary expenditure and inefficiency. It must be borne in mind that under the direct control of these mine offices comes the administration of native compounds, and what I have just stated with regard to unnecessary expenditure and inefficiency certainly applies to these compounds also, the amount involved being very great when the large number of native employees is taken into consideration.

Now I come to the Head Offices. Each group has its head office in Johannesburg, and I think most or all of them have also offices in London and Paris, and some in Berlin as well. In the Johannesburg offices are a large number of departments, each dealing

with separate details of the administration of the mines, and, naturally, each of these offices requires its own staff, with all the attendant expenditure. Moreover, the very heads of these offices, unfortunately, look at the mining industry not as a whole, but almost invariably from the point of view of the special interests of the mines under their own particular control, the upshot being that no common policy for the working of the mines is pursued, and that in order to gain minor or temporary advantages the industry as a whole, and with it, of course, everybody concerned therein, is made to suffer largely. Apart from the Chamber of Mines, the Executive of which consists of representatives of the various groups, and which is supposed to deal with the administration of the whole of the industry, there also exists the Groups Committee, whose *raison d'être* I, personally, have never been able to make out, but which, I am always told, is of very great advantage in connection with the control of the mining industry—a view which I am sorry to say I cannot accept; and there are, further, a Consulting Engineers' Committee, a Mine Managers' Association, the Witwatersrand Native Labour Association, and last, but not least, the Native Recruiting Corporation. All these different bodies, instead of working harmoniously together, somehow or other, through jealousy or I know not what reasons, seem to manage to pull against each other, and the result, naturally, cannot be a good one. Now, if a general amalgamation were brought about, all these separate organisations would be thrown together, they would be very largely reduced in personnel, and they would have at their head one chairman, with the consequence that either unanimity would be brought about or the minority would be ruled by the majority, and a common, far-sighted policy would be inaugurated for the whole of the Witwatersrand, the beneficial effects of which on the working of the mines nobody can reasonably doubt. So far as the Witwatersrand Native Labour Association and the Native Recruiting Corporation are concerned, I shall refer to these later.

I now propose to deal with the disadvantages the present system involves for the workmen. To-day there is competition everywhere for white labour as well as black, and although, through the existence of the Witwatersrand Native Labour Association and the Native Recruiting Corporation, the competition for native labour has been somewhat limited, it goes on, nevertheless, in certain directions. The consequence of this is not to the benefit of the workmen, and does not conduce to the earning of steady wages, but, rather especially as regards the white men—induces them to roam about all over the Rand in the hope of extracting a big cheque on the "other mine," and after having tried, and very often failed, to achieve this object on that "other mine," they again move on to another property. What is the consequence of this? It seems obvious that it must lead to inefficiency, because apart from the fact that no sooner has a workman become reasonably acquainted with his working place in one mine than he leaves and has to start anew in unfamiliar surroundings, he also loses the interest which he would naturally feel for a particular mine if his employment in that mine were of long duration; and although I believe we have very many honest workmen on these fields who have no intention of working below their capacity, it is only human that under the circumstances they should involuntarily slide into slackness. This slackness, of course, reacts on them as far as their pay is concerned, but it has also other serious consequences. It is often the cause of accidents, attended, in many cases, by loss of life, and it also results in neglect of the precautions for maintaining proper health conditions—underground as well as on the surface. Then, again, this competition for labour is carried on by mines which are struggling for their very existence. The latter absorb large quantities of labour which could, to the greater advantage of the labourers themselves and of the industry in general, be employed in other and richer sections, until, as efficiency increased, these poor mines could be worked at a larger profit, with benefit to all. I am also convinced that the competition for labour, so far as the natives are concerned, has conduced to the continuation of the system of recruiting so distasteful to the native himself, and certainly not less distasteful to the employer. The recruiters have taken advantage of the position, and, in my opinion, have succeeded on various occasions in making the employers believe in the necessity for continuing the evil, under the threat that the natives will not come to work unless they receive, before leaving their kraals, an advance to supply their families with necessaries of life. Now, I am strongly of the opinion that this custom of advancing a labourer money before he has even started work (and I make bold to say that very often he will not commence work as soon as he would have done had he not received an advance) is economically most unsound, and must lead to discontent amongst those to whom the advances are made. I maintain that if a general amalgamation were brought about and the industry were in a position, as a whole, to make the Witwatersrand more attractive to natives, the latter would come voluntarily to work, and the monstrous expenditure in connection with this loathful recruiting system would be saved. I am quite prepared to admit that years ago it was necessary to recruit natives for work on these fields, because they were not then acquainted with the mines, but since then they have travelled to and fro in such large numbers that no other advertisement is needed than the native going back to his kraal and expressing satisfaction with his stay here.

The next point I propose to discuss is the working of the mines. To-day, labour is scattered all over the fields, and except at a few of the larger properties it is impossible to concentrate work in such a manner as to obtain the best results. After a general combination this could be easily effected, and, without fear of contradiction, I state that a large reduction in working costs could be brought about without reducing the existing scale of wages. It naturally follows that when concentrating work in the manner I have in mind, a much greater proportion of mechanical appliances would be used, and, obviously, if the same quantity of rock were then broken, it could be done with a lesser number of employees; but it must not be forgotten that, in consequence of the lower working costs then obtaining, ore which cannot be profitably worked to-day will be brought within the limit of payability, and I have no doubt that the larger scale of operations would much more than make up for the loss of employment resulting from improved efficiency.

There is another very serious aspect to the working of the mines individually. To-day there are some properties which, undoubtedly, have so many working faces at their disposal that they could easily crush larger tonnages provided they had a sufficient labour force, but, this not being available, some of the faces have perforce to remain unworked, whereas in other mines the number of faces available is inadequate, and double shifts are resorted to in order to make up for the deficiency. I need not say that, from a health point of view, the double-shift system is undesirable, and I think I am right in stating that from the financial aspect also it is unsound. Were an amalgamation brought about, this state of affairs would at once cease to exist, and single shift could be introduced all over the Rand, with its undoubted advantages, especially to the working men.

Speaking of the financial side, there is, in my opinion, a certain amount of so-called capital expenditure incurred which could be avoided if the existing workings, plant, and machinery could be made the best use of for the whole of the mines, instead of, as under prevailing conditions, serving individual mines only.

I have endeavoured to show in the foregoing the disadvantages of the present arrangement *vis-a-vis* the advantages of a general amalgamation, but unfortunately, owing to lack of time, I have not been able to go into details as fully as I would have liked. If, however, you desire me to supply such details at a later date, I shall have great pleasure in preparing them.

In the meantime, I will shortly recapitulate my arguments in favour of a general amalgamation, and will divide the benefits to be derived therefrom into three classes:—

1. Those accruing to the working man.
2. Those accruing to shareholders.
3. Those accruing to the community of the Witwatersrand and to South Africa as a whole.

1. Although on the face of my proposals it might appear that the number of white men employed would be reduced, I maintain that the reverse would actually be the case. Wherever a reduction would be brought about through better efficiency, an increase greater than that necessary to equalise this would take place in consequence of lower grade ore coming under attack, so that, in my opinion, this fear can be dismissed. On the other hand, a combination of the mines would, undoubtedly, have the effect of giving the workmen steadier employment, more regular wages, and, as larger amounts of money for welfare work would be available, better health and living conditions, which could not fail to lead to the contentment which is so sorely lacking here.

2. The shareholder would see eliminated the more or less speculative element attaching to his holdings to-day, inasmuch as the chances of the grade in the particular mine in which he is at present interested falling off, would be minimised or almost totally removed by the fact that, as experience has shown, reductions of value at one point are to a large extent compensated for by increases at another; consequently his investment would be in a concern of much greater stability, while at the same time embracing all the possibilities of this great mining field. He would also benefit by the increase of profits resulting from concentration and improved efficiency, and although, as I will state later, I would not propose to distribute the whole of the profits to shareholders I think I am not too optimistic if I predict that larger distributions would be made to them than will be possible in the future under a continuance of the present arrangements.

3. I have often heard it argued that the mercantile community would greatly suffer by a general amalgamation, inasmuch as the combined concern would then be inclined to deal direct with producers, instead of, as we are doing now, through local houses or agents. Personally, I have not the slightest fears for the mercantile community in this connection. I think it is in the interests of the administrators of the mining industry to deal with local merchants, as the economy effected by dealing direct with the manufacturers cannot outweigh the advantages of having a responsible person on the spot to negotiate with in cases where deliveries are not as expected. As a matter of fact, I think that after the amalgamation a wave of progress would come over the land, and the merchants necessarily would benefit by the attendant expansion. But it is not only the merchant we have to consider; it is South Africa as a whole; and in order that the Union should benefit, apart from the increases which would take place in Profits Tax, &c., I propose that after shareholders shall have received in dividends an annual amount of, say, 7 per cent. on the capital invested by them, say 25 per cent. of the remaining profits should be retained by the amalgamated concern for reinvestment in the Union of South Africa; that is to say, the money should be used for purposes such as the opening up of new mines, the building of railroads, or the fostering of farming and other industries. In this manner an activity could be secured which otherwise could not easily be brought about, which would lead not only to larger revenue to the country's exchequer, but also to the employment of large numbers of additional workmen.

I hope I have succeeded in the foregoing remarks in showing that there would be no reason to fear (as has been suggested to me) that the general amalgamation of the mines of the Witwatersrand would bring ruin to many people, and that I have proved that such amalgamation would benefit not only shareholders but also the workmen and the community of the country as a whole, and that progress, which is now hampered by causes already explained by me, would then ensue to an unexpected degree.

2589A. **(Chairman.)** I gather from that that you are strongly in favour of amalgamation of the mining industry, and you think it is quite practicable?—Yes.

2590. You consider that the mines are not working at present to the best advantage?—That is my opinion.

2591. And you think that amalgamation is a system under which all would benefit?—I think so, under a general amalgamation.

2592. What are the greatest difficulties to be overcome?—I think the principal objection to the present system is the enormous waste of labour which might be obviated. Mr. Schumacher is, I think, in favour of amalgamation in theory, but in practice he is against it. But in regard to the Crown Mines, which he has referred to, they are now crushing 60,000 more tons with the same labour than they were crushing in 1909. I think that is conclusive proof of the benefit in amalgamation as regards working of the mines. He has also referred to the New Modderfontein Mines—well, they used to crush, about a year ago, about 50,000 tons with approximately double the number of labourers they have to-day. I think that proves that the labour is most extravagantly used, and that there is enormous wastage. I believe that if there was amalgamation a much greater tonnage could be crushed with the same labour force, or that the same tonnage could be crushed with a less number of natives, and consequently much more development would take place in this country. In regard to the shortage of labour which we constantly hear about, I think that in reality it does not exist.

2593. Your view is that the shortage is created by the industry?—I think so. I am most strongly of that opinion.

2594. Now what have you to say as to the effect of amalgamation in regard to the interests of the white worker?—The white worker will be benefited because he will not move about as he does to-day, and more regular work can be done with greater efficiency. He will be more comfortable and contented because he will know that he can go on working indefinitely. He will not have the inducement to keep going from one mine to another to earn the big cheque. Consequently he will take more interest in his work, and his wages will be more steady; also his health conditions will be better, because owing to the state of affairs hitherto obtaining he must become callous.

2595. Why do you say he must become callous under the present system?—Because if a man works a certain time at one mine and then goes to another with new surroundings, I do not think he pays the same attention to the preventives that exist that he otherwise would.

2596. I think the average of the white worker here to-day is something like 1*l.* a shift?—Yes.

2597. Do you consider that the advantages obtainable under your proposed scheme would be such that a higher daily wage would be paid to the white worker out of the profits?—I do not know that that would be necessary, but certainly I am not in favour of reducing wages.

2598. As to the present management of the industry as a whole, that management is in the hands of various groups?—Yes.

2599. To what extent can it be said that their direction is to the general benefit or particular benefit?—I cannot see that it is to the general benefit at all.

2600. That is to say, each group looks after itself?—Yes. They come together to discuss matters, and make joint arrangements, but these are very rarely carried out. I think the whole arrangement to-day is very cumbersome and unnecessary. You have head offices here, and head offices in London, and Paris, and Berlin. You have the Chamber of Mines and the Witwatersrand Native Labour Association, and the Native Recruiting Corporation, and you have the Consulting Engineers Committee and the Managers Association, and they are all somehow or other pulling against each other. I do not know how it strikes the Commission, but it appears to me that it is impossible to manage an industry efficiently under these circumstances.

2601. You think that these six bodies——?—There are more.

2602. Well, you think that these six or more bodies are not scientifically necessary?—They are not. As a matter of fact, I think they are absolutely unnecessary, and that one body could manage the whole concern.

2603. What is your view regarding the contract system?—I do not think the results are satisfactory.

2604. Do you think it leads to instability of white labour, and also to increased risk of accident in the mines?—Yes, it does, because the miner goes from mine to mine at present to earn the big cheque.

2605. Now, as regards the native labourer: In what direction do you look for further efficiency and his being given greater scope with a view to getting higher remuneration for better work?—I believe there is scope in that direction.

2606. You consider that the maximum average wage, with the restrictions imposed on a man earning more than a given amount per day, are harmful to the development of the industry?—Yes, and harmful to the native's development as well.

2607. You think that it also diminishes the attraction of these fields for the native in the distant territories?—I think so.

2608. Let us assume that it was possible to give the native the opportunity of earning 3*s.* or 3*s.* 6*d.* instead of keeping him at 2*s.* 2*d.*, do you think that that would conduce very powerfully to attract natives here and to keep them here longer?—I do not think we require a larger force. I think it is large enough if we only made proper use of it.

2609. That is to say, at present a large number of men work inefficiently for a small individual wage?—Yes, I think most of them are not working to the full extent of their capacity.

2610. Now any concentration of direction such as you have indicated would probably lead to a far larger use of machinery?—Yes.

2611. Is it a fact or not that this principle holds good that the more machinery there is the more white skilled labour is required?—I think the white man will always be superior to the native in working with machinery, and as you employ more machinery, naturally you can expand, and through that expansion you will employ more white men than to-day.

2612. That is to say, the more highly developed the machinery of extraction is the greater the proportion of skilled white labour that you require?—Exactly.

2613. You speak of the question of single shifts and double shifts. Is it universally admitted that the single shift system is more conducive to the health of the worker?—I think so. It must be, because you clear your mine much better.

2614. I think you also say, which is not so generally admitted, that it is more economical?—Yes.

2615. Why?—Because the man on night shift never works as well as the man on day shift.

2616. And you hold the view that with more concentrated direction the whole of the fields could be worked with a single shift?—Yes, most decidedly.

2617. Can you develop that?—I think that even to-day there is a large amount of development available, which, if the whole of the companies would only amalgamate, could be made use of, whereas individual companies cannot make full use of it, because they have not the labour force necessary, or the proper surface plant.

2618. You are willing to give further details in development of your views?—Yes.

2619. We shall be glad to have them,* and we are greatly indebted to you for the work you have already done. In regard to the mercantile community here, whose interests have to be considered, what do you say the effect would be?—I should say they would benefit because there would be expansion. The mercantile community are afraid that if there is general amalgamation the new company may import direct. But that will never take place, because the small financial advantage is more than outweighed by the fact that to-day you have the agent or the representative of the home house on the spot with whom you can negotiate in case of delay or dissatisfaction. I would not be in favour of abolishing the agency.

2620. That applies to the larger houses; what is the proportion of the stores now bought by the industry which is not bought locally?—I do not think anything is bought which is not bought locally.

2621. The company has to buy everything on the spot?—Yes. Of course, it is imported, but it is bought locally.

2622. Through a commission agent or representative?—Yes, and it will continue.

2623. Presumably if your plan were adopted?—Quite so.

2624. Now, in regard to the smaller trading community, how would they be affected?—I do not see why they should suffer adversely. I cannot see any reason why they should lose. On the other hand, I think they would benefit by the general expansion.

2625. That is to say—your scheme would produce economy, and the resulting economy would mean that large areas would be worked which are now unworkable?—Yes, and it also leads to better organization, and through that, areas which would otherwise have to wait can be worked at once.

2626. I suppose you also say that improved economy facilitates the supply of capital, without which the development must necessarily be slow?—Yes.

2627. And in that direction also rapid expansion is rendered more feasible?—Yes. But I also propose not to distribute all the profits to shareholders.

2628. What do you propose in that direction?—Of course it is very difficult to state definite figures in this connection, but what I had in my mind was that the shareholders should get, say, 7 per cent. on their nominal capital, and of the profits, after paying 7 per cent., 25 per cent. should be kept back by the company to be re-invested in this country, the balance to go to the shareholders. The 25 per cent. to be applied to opening new mines, building railroads, or fostering the farming industry, or other industries in the country.

2629. Suppose a company earns 20 per cent., you say 7 per cent. should go to shareholders?—Yes.

2630. Leaving 13 per cent.?—No, I say 7 per cent. on the amalgamated capital—not on the individual capitals. Because if a company to-day earns 20 per cent., then the shares which it would get in the new company would be accordingly. And on these new shares the 7 per cent. would be equal for all, whether to-day they earned big dividends or small.

2631. And having paid 7 per cent. to its shareholders, of the balance 25 per cent. is to be retained by the company for re-investment in the development of this country?—Yes, I think that is a very good feature of the amalgamation, and very much in the interests of this country. Because you always hear that the mining industry is getting all it can out of the ground and sending it abroad.

2632. And that money should be invested on a commercial basis, and with a view to the benefit of the country?—Yes.

2633. **(Mr. Sinclair.)** You spoke of the wastage: would it not be possible to get a fuller working capacity without an amalgamation?—Well, it is very difficult to say, as long as this competition exists. It must lead to inefficiency.

2634. It would seem obvious that if six or more bodies combine there must be produced greater economy, but what is in my mind is who is to pay for it? There would necessarily be less competition for wages, to begin with?—Yes.

2635. Would not that result in reduction of wages?—No. Because, as I said from the beginning, that was not in my mind.

2636. I know it may not be your intention, but the worker would not have the open market he has to-day. Do you not think that the effect of your proposal would be to limit the worker's market in which he has to sell his labour, and that he would have to take less?—He is not forced to sell it in Johannesburg. He can go to other places.

2637. The alternative then is that he must go elsewhere?—Yes, if the necessity arises, but I do not see why it should if he is a good workman.

2638. You think that the economies which would be brought about by amalgamation would leave a larger margin to pay the worker wages?—Yes.

2639. **(Mr. Lorimer.)** Does the General Mining and Finance Corporation own any mines?—No, they control them. They have interests in them.

2640. In what sense?—They have the management of the mines.

2641. What do the Boards of the mines do if an outside body controls them?—No outside body controls them. The Directors of our Corporation are on the Boards of the companies.

2642. Are your proposals founded on a practical knowledge of the mines or only on theories?—I have been 22 years in this country, connected with mining.

* The witness subsequently furnished a further statement, which is printed as Appendix XII., p. 115.

2643. Do you mean you have managed mines?—No. I am not a mine manager.

2644. Your suggestion is that the amalgamation of the whole Rand would benefit the country, the shareholders, and the workers?—Yes.

2645. You say great economics could be thereby effected?—Yes.

2646. But do you think it possible that one man could be at the head of the mines over 50 miles and control them as effectively as they are controlled to-day?—More effectually.

2647. On what ground?—Because I am afraid that the different heads now controlling the industry are not working harmoniously together.

2648. Does not your proposal rather suggest that all industrial organizations should be controlled by one man?—It depends where they are situated and upon their extent.

2649. It seems to me your arguments imply that in any industrial organization it is better there should be no competition but one huge controlling power?—No, I do not say that. Another industry may be too large, but this is not.

2650. You make fairly clear several important advantages to be derived from amalgamation, but I have been unable to follow you where you refer to the advantages to be derived by the men. Do you think it would be to the advantage of the workman here that all competition for his services should be eliminated?—Yes, because the competition now brings him no advantages.

2651. You mean to say it would be better that the man should be at the mercy of one employer than that he should be free to choose and make his own terms?—Yes, in this instance, but he can still make his own terms.

2652. Do you think the men themselves are likely to share those views?—I do not see why not. They may not to-day, but I think they will in future.

2653. You think that yours being a logical conclusion they must of necessity come to it?—Yes.

2654. But there are others, are there not, who appear to think that if your proposals were carried into effect it would be resented by the men and would lead to a serious upheaval?—I think that if there are such they are mistaken.

2655. Do you think that the miners have not benefited in the past from this competition, and they would be better off to-day under one huge concern?—Yes. The present competition is bad for the workman, bad for the industry, and bad for everybody.

2656. **(Mr. Garnett.)** You say that you think it would be to the advantage of the worker, but is it not a fact that the best conditions for the worker tend to attract the best workmen?—Yes, but it all depends on what you call the best conditions.

2657. Assuming all other things to be equal, the best workmen will go where there is most money?—Not always.

2658. But assuming that that tendency does exist, is it not a disadvantage to the poorer mines to be able to attract only the worst and less efficient workers?—That is what they are doing.

2659. I mean, given varying conditions in the same industry at different mines or works, is it not the natural tendency of things for the best men to go where the most money is to be made?—If the conditions are the same; but they are not to-day.

2660. If the best men go where the most money is, does it not leave the less efficient to go where there is the least money to be earned?—That may be so, but to-day very often the good conditions are present where the lesser money is to be earned, and *vice versa*. I want to make conditions good everywhere. If the conditions on mines where less money is to be earned are better the worker would prefer to go to that mine because of the many other advantages.

2661. You are introducing a number of factors that all have weight, but the assumption that I was about to make was this, that, conditions being equal, the only attraction in a particular mine or works being the prospect of making more money, would not that bring the best men to that place and would not that leave only the residue of inferior workmen to work at the place where less money could be earned under the same conditions of housing, working, and so on?—Yes. That is in favour of my argument. After all, the workman is not limited to the Witwatersrand.

2662. But would that help the mines here?—Yes, you would get the best labour afterwards.

2663. I only want to ask you one general question, that, if there are a score of different works in any part of the world, is not one inducement to people who engage in that industry to go into that neighbourhood and eventually find their way to where the most money can be made?—Yes.

2664. And unless you standardize the wages throughout that particular industry, so that a man giving so many hours' work shall receive the same remuneration, can you expect people to go into works without hope of promotion: can you expect the same class of man to be attracted?—No, but they will have promotion here.

2665. Even in face of this close competition?—Yes.

2666. **(Sir Alfred Bateman.)** Have you contemplated the State interfering with this great corporation?—Yes, but I do not see why they should interfere more than they do to-day. Because the amalgamation would be to the benefit of the country, in my opinion.

2667. Do you not see what they are trying to do in America, for instance, where under the Sherman Act they are trying to regulate these great corporations and trusts?—But this is not a very great corporation. Have you not in England railway companies three or four times as big as this?

2668. But there is plenty of railway competition in England?—And there is a lot of mining competition in South Africa.

2669. But you take in the whole of the Rand?—But this is only one district.

2670. A rather large one, is it not?—Yes, comparatively.

2671. Are you prepared to see the State take it over?—Yes, if they pay for it.

2672. It would not make any difference, would it, in regard to your stores, as to where they come from?—No, I think not.

2673. Would it be more or less free?—Just the same as now.

2674. They are not exclusively British?—No, there is competition.

2675. You have no particular preference for the Mother Country in the matter of buying stores?—I think the general feeling is to buy in the best market.

2676. In fact, you would like to use a foreign port and buy German or other goods if they were cheaper?—No, I would not like to see that, but it would not be economical to pay 20 per cent. more for British goods.

2677. Well, 5 per cent.?—You do that now, because of the duty.

2678. You have no preference?—No.

2679. **(Mr. Tatlow.)** Do you know the number of white workers on the Rand?—27,000.

2680. Do you think they would view with favour the creation of such a great monopoly as this?—I do not see why they should not favour it.

2681. But suppose they did not favour it, is it not worth while to take them into account for the sake of peace and quiet?—Certainly.

2682. You are not certain. But it occurs to me they would raise a great outcry?—I think they would sooner deal with one head than many.

2683. **(Chairman.)** I take it your view is that the conditions of white labour with this constant roaming about are not satisfactory?—Very unsatisfactory. The men have no steady employment.

2684. Are there many men who leave the fields with a considerable sum of money acquired here?—I hardly think so.

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APPENDIX I.

NATAL.

Newcastle, Monday, 23rd March, 1914.

EVIDENCE TAKEN BY A COMMITTEE OF THE COMMISSION CONSISTING OF SIR H. RIDER HAGGARD, MR. T. GARNETT, AND THE HON. E. R. BOWRING.

(i.)

Mr. James Malcolm gave evidence as follows:—

I am a mine manager, but at present I am not occupied in Natal. The points upon which I wish to give evidence are the coal areas. I have been mining all my life—both coal, ironstone, and shales. There is a lot of coal around this district to be taken out, both north and south, and it lies from 3 feet to 19 feet in thickness.

In the district of Utrecht is some of the best shale found in the Colony, yielding 40 gallons of crude oil per ton to 70 lbs. of ammonia. In this locality a large industry could be made out of coal.

There are large patches of ironstone which can be wrought. I have seen ironstone over 10 feet in thickness, and I believe it would give from 80 to 90 per cent. of iron.

1. **(Sir Rider Haggard.)** From what you tell us, there is an inexhaustible supply of coal in this neighbourhood?—There is. You don't require to sink very deep, as it crops out to the surface somewhere. The greatest depth would not be more than 500 feet.

2. How many collieries are working in this district?—Only two—Fairleigh and Newcastle.

3. What is the quality of the coal?—Very good. There is some coal here which is nearly as good as Welsh coal, but it is not washed and dressed and put into different sizes. If it were, it would be almost equal to the Welsh anthracite.

4. Is the industry profitable?—Yes. It pays at 6s. per ton. The principal mines are giving about 7½ per cent. on the capital.

5. Are the mines scientifically worked?—Yes.

6. Is there any waste?—Yes, an enormous waste. We have plenty of coal, but it is extravagantly destroyed. I would stop it by law.

7. Do you know whether any representations have been made to the Union Government?—I don't know.

8. How does your coal compare with that of other collieries?—It is better than Transvaal coal, and there is an inexhaustible supply.

9. Is the iron in proximity to the coal?—Yes.

10. Is it easily smelted?—There are the same difficulties as at home.

11. **(Mr. Garnett.)** You mentioned hæmatite iron. Have you any analysis?—I cannot say.

12. With regard to smelting—have you plenty of limestone?—I have not seen any.

13. With regard to coal—you say there is an inexhaustible supply. It does not lay to any great depth?—No.

14. You can only say you believe the amount of coal is very large?—Yes.

15. Have you any analysis showing the thermal units of this coal you are speaking of?—The units

are from 10 to 12½. This refers to the coal between here and Utrecht. It is nearly equal to Welsh anthracite if it is properly handled on the surface.

16. **(Mr. Bowring.)** With regard to oil shales. Are any of them working at present?—No. They have been traced at the foot of the mountains for several miles, and several have been tested, averaging 40 gallons of oil, and some from 56 to 76 lbs. of sulphate of ammonia per ton. The Scotch article gives an average of 23 gallons, and from 36 to 70 lbs. of sulphate of ammonia. They are of better quality than the average Scotch, so far as analysis goes.

17. **(Sir Rider Haggard.)** Are you sending much coal down country just now?—No, the coal here is used for railway consumption, and large quantities go for shipping.

(ii.)

Mr. J. Logan said:—

At present I am under-manager of the Fairleigh Colliery. As far as I know, we have good coal, but how many acres, I cannot say. So far as we have gone with boring we have found good coal. With regard to its thickness, we have about 11 feet of carbonaceous matter.

The roof, where we are working at the present time, appears to have undergone some metamorphosis. The further we go down the better the coal is getting, and we hope in a short time to have a large area of coal. I estimate we shall probably have 5 million tons in that mine.

18. **(Sir Rider Haggard.)** What is the acreage you are mining?—About 1,800 acres. A former company owned the mine, and, I am told, certain big pillars were left to support the roof, and that a new manager coming on the scene, and being desirous of making a name for himself by increasing the output, worked on these pillars until they were unable to support the roof, and the whole thing fell in.

19. What is the financial result of your operations?—The capital of the present company is 20,000*l*. It has been working for about twelve months, and the coal realises at the pit's mouth about 6*s*. 6*d*., and is used principally for railway purposes.

20. **(Mr. Bowring.)** Your output is about 3,000 tons per month?—Yes, but we hope to increase it very shortly. We hope to get it to 6,000 tons per month. It may be increased still further by putting down extra plant. The quality compares very favourably with any other, its main feature being that it does not clinker.

21. Do you endorse the last witness's comparison with Welsh coal?—I certainly do not think we have anything approaching Welsh coal in this country. The nearest I have seen to it is a Swaziland coal. I have not gone into any comparison between Natal coal and Welsh coal for household purposes.

22. What percentage do you suppose the semi-anthracite coals fall short of Welsh coal?—If Welsh coal be taken to represent 1, I should expect Natal coal to represent ·75.

23. Do you know of any deposits of iron ore in this neighbourhood?—I have never seen any ironstone in this district, although I saw a small portion on the Buffalo flats. I do not know of any ironstone in this part of South Africa which is workable.

24. **(Mr. Garnett.)** Do you know of any coal in this immediate district suitable for coking?—I could not say. A good coking coal has to be put through a very severe test. I have no data to go on.

25. **(Sir Rider Haggard.)** About these oil shales. Have you any experience of them?—No.

(iii.)

Mr. William Bekenn said:—

(*For evidence of this witness as to Railway Rates on Coal and Coal Bunkering, see p.* 146 *of* [Cd. 7706].)

I am manager of the Fairleigh Colliery. I think the last witness has covered area, quality, and prospects of the coal.

We have only been running twelve months, but we have been very successful, and our position is improved by the Government taking all our coal. The other collieries working in this district are the Newcastle, Ballengeich, and the Utrecht Mines, the three mines being of much the same quality.

26. **(Mr. Garnett.)** Have you a sufficiency of labour?—We have had great difficulties in this respect, but it is coming in more freely now. Still, labour in every industry in South Africa is under-manned. The Zulus go to Johannesburg principally for house-work.

27. What are the hours on the mines?—Ten hours a day, but the hewing boys seldom stay down more than eight hours.

28. What can a miner make, on an average?—He can make 2*s*. a day, but we feed and house them, and find them medical attendance. The total wages paid, including everything, works out at about 3*l*. 16*s*. per month.

29. Have you any piece-work?—It is practically all piece-work. The boys could make their wages 4*s*. per day by overtime, but they won't.

30. **(Mr. Bowring.)** How do you find the health of your boys?—Particularly good. We have very little sickness. I believe much of the sickness on other mines is caused through boys coming from their native country and going to such high altitudes as Johannesburg, &c.

31. **(Mr. Garnett.)** Of course, your mining is almost entirely surface mining?—Yes. We have two mines working from 400 feet to 500 feet, but, practically, all our work is done at 100 to 150 feet.

APPENDIX II.

Letter from Mr. Warington Smyth furnishing information as to Iron Ore Deposits in Griqualand West (*see* his Evidence, Q. 43, p. 3).

Union of South Africa,
Office of the Minister of Mines,
Cape Town,
March 18th, 1914.

Sir,

With reference to my evidence, in which slight reference was made to the iron ore deposits in Griqualand West, I beg to forward herewith, for the information of your Commission, a report by the Assistant Director of the Geological Survey on the occurrences in that district, which gives their character in some detail.

I think it is possible, from the wording of my replies, that I may have given the impression that this deposit is of recent discovery. I should have explained that the original discovery was made some twenty years ago, I believe, by Mr. Percy Johns, but that at the time there seemed no possibility of bringing the deposits into any closer contact with civilisation, owing to their great distance away in an inhospitable region. It has only been in recent years, when railway development has been on the increase, that attention has been redirected to these deposits. Even at present, however, their distance from the main lines of railway seems to indicate that some time must elapse before they can be profitably exploited.

I have, &c.,
H. Warington Smyth,
Secretary for Mines and Industries.

To the Secretary,
Dominions Royal Commission,
Huguenot Buildings.
Cape Town.

Enclosure.

Note on the Iron Ores of Griqualand West and Bechuanaland.

The ores are found in two ridges, 28 and 30 miles long respectively, in the neighbourhood of Postmasburg and Gamagara. They lie about 100 miles west of the railway between Windsorton and Taungs. There are also isolated patches of ore in the neighbourhood of these ranges.

The distribution of the ores is shown in Sheet 45 of the geological map of the Cape Province, in which

they are represented by the colour for "Blink Klip Breccia."

The ores are hæmatite and magnetite mixed with silica, and four specimens were found to contain 42, 53, 56, and 67 per cent. metallic iron; the lowest percentage was not in one of the ores, but in a rock which probably represents the material from which the ores were produced by concentration. The analyses were unfortunately not completed, and the percentage of detrimental ingredients, such as titanic and phosphoric oxides, are not known. From the nature of the ores, however, they are likely to be fairly free from those substances, which are usually abundant in the magnetic ores associated with igneous rocks, but not, as is the case here, in those derived immediately from sediments.

The ore bodies were formed by the concentration of iron oxides contained in a formation which has a very much wider distribution than the masses of ore. The geology of the ore bodies indicates that they will not extend to any great depth: though I cannot put any definite limit to their depth, it is more likely to be less than 200 feet than over that figure. As the hills made of the ore are of various heights up to about 400 feet, and in places are over a mile wide at the base, it is evident that large quantities of ore exist.

At the present day ores containing 50 per cent. of iron are very largely worked outside Europe, where the percentage in payable rock may be much less. The percentages of titanic and phosphoric oxides are, however, as important as the quantity of iron. The amount of silica is also important, as ores which are high in silica have to be concentrated artificially, and the admissible limit in silica depends upon circumstances.

A proper estimation of the quantity and quality of the ores can only be made after systematic prospecting by bores or shafts. An estimate based on surface specimens only might be very misleading, because it is not known whether some enrichment has taken place at the present surface or not. The deposits are of an unusual character, and experience elsewhere cannot be safely used in forecasting their behaviour below the outcrops.

The deposits are certainly worth close attention, and further information as to their composition could be got by having specimens already collected fully analysed in the laboratory of the Department.

ARTHUR W. ROGERS,
Assistant Director, Geological Survey.

March 4th, 1913.

MINES DEPARTMENT (GEOLOGICAL SURVEY).

Assay and Analysis Report.

Result of analysis of sample received from M.M. 949/13, marked No. 1 Hæmatite Ore Deposits, District of Kimberley. Report on, by Dr. Rogers:—

	Per cent.
SiO_2	3·3
Fe_2O_3	94·5—Fe 66·15 per cent.
Loss on ignition ...	1·0
	98·8

S, P, Ti, absent.

SAMUEL M. TWEDDILL.

Pretoria,
31st March, 1913

APPENDIX III.

MEMORANDUM (EXTRACTS) FURNISHED TO THE COMMISSION BY MR. J. T. WILLIAMS, MANAGING DIRECTOR OF THE NATAL NAVIGATION COLLIERIES AND ESTATE CO., LTD., ON THE COAL MINING INDUSTRY OF NATAL.

(*For the oral evidence of Mr. Williams, see pp. 24 to 26.*)

As to the extent of the Natal coal-fields, there is an exhaustive report in existence, dated September, 1881, by F. W. North, an English mining engineer, and Fellow of the Geological Society. Mr. North was appointed by the late Natal Government to investigate and report on the coal measures of the Colony. He was engaged on the work for fifteen months, and finally reported that he estimated Klip River County, Northern Natal, contained 2,073 million tons of coal, after deducting 50 per cent. for dykes, faults, &c.

The report did not include the extensive coal-bearing areas of the new districts, Utrecht and Vryheid, which were added to Natal after the Boer War, nor does it include the coal and lignite deposits of Zululand. The lignite deposit in Zululand is extensive, but, so far, nothing has been done with it

It was not, however, until 1889 that any serious attempt was made to develop the coal measures. At that time a number of companies came into existence, of which only two—the Dundee Coal Company and the Elandslaagte Coal Company—have survived. (The original field floated by the Dundee Company was exhausted nearly two years ago.) The remaining companies came to an end for various reasons. In 1898, the serious strike of miners in the Welsh coal-field increased the price of coal produced elsewhere and led Transvaal mining men to the Natal coal-fields. Two of the companies they promoted—the Natal Navigation Collieries and the Natal Marine Collieries, turned out successfully. The former is still in existence, but the latter was exhausted in 1903, after distributing in cash 20*s.* 6*d.* per share. High prices for coal obtained during the war led to further promotions, and increasing attention came to be paid to Natal coal-fields.

From Mr. North's estimate of 2,073 million tons, it would seem at first sight an easy matter to float any number of coal companies in Natal, but closer acquaintance with the nature of the coal deposits and of the geological characteristics of the district proved that the coal in large areas is not suitable for the market.

A very large proportion is unsuitable because anthracitic, and cannot be used on the railways nor by steamers trading with the Province; large areas are broken up, in some parts the seams are thin, but there still remain enormous areas of coal untouched.

Present output.—The output of coal in Natal during the past few years has been as follows:—

	Tons of 2,240 lbs.
1910	2,296,687
1911	2,394,238
1912	2,472,085
1913	2,608,408

Expansion of the output mainly depends on the increase of coal shipped as cargo, but increases will also come about by industrial expansion in South Africa itself, largely depending on cheap fuel, which, in turn, depends on:—

(*a*) Lower working costs—Labour: white, coloured; stores: mealies, rice, fresh meat, &c.

Wages and cost, both of white and coloured workmen, are increasing. Cost of mealies depends mostly on favourable seasons, the price per bag of 200 lbs. varying from 8*s.* or 9*s.* to even 15*s.* and 20*s.* At present, the price is about 10*s.* to 11*s.*

(*b*) Lower railway rates. (*See* "Railways, Harbour and Bunker Coal," Appendix III., p. 148 of [Cd. 7706].)

Supply and Recruitment of Native Labour.—The Government issues monthly returns showing the number of whites, Asiatics, and natives, respectively, in the service of each colliery in Natal. The average labour in service on Natal coal mines for the last two years has been as follows:—

Year.	Whites.	Asiatics.	Natives.	Average Monthly Output.
				Tons.
1912 ..	508	4,213	6,050	206,009
1913 ...	545	3,773	7,376	217,367

At the request of the Natal Labour Department, an inquiry was made of the Natal collieries the other

day as to what quantity of labour would be required to enable the collieries to deal adequately with normal outputs. According to replies received, the number required would be 14,400, or 4,000 more than the number of Indians and natives now employed.

It is important to notice that the number of Indians employed is about one-third of the total, and that the number is decreasing owing to the Indians being dissatisfied in regard to the 3*l.* tax per head, marriage laws, and restriction of movement in the Provinces of the Union.

Costs. (a) *Indians.*—The greater number of Indians are employed under indenture. They have been recruited originally in India for a term of five years, the rates of pay being as follows:—

Men.

First year	12*s.*	monthly, for surface work at collieries, and 3*s.* additional in each case, if working underground.
Second ,,	13*s.*	
Third ,,	14*s.*	
Fourth ,,	15*s.*	
Fifth ,,	16*s.*	

Women.

Women under the five years' indenture agreement receive:—

First year	5*s.* per month
Second ,,	5*s.* 6*d.* ,,
Third ,,	6*s.* ,,
Fourth ,,	6*s.* 6*d.* ,,
Fifth ,,	7*s.* ,,

They are employed to a limited extent, and only on the surface (none underground).

On the termination of their indenture for five years they must either (*a*) return to India, (*b*) re-indenture for a further term of two years, or (*c*) pay a tax of 3*l.* per head if they elect to become what is known as "free" Indians. To this general description there are few exceptions. On the expiration of their five years' indenture, the Indians have, of late years, especially since 1912, when importation from India was stopped, re-indentured only on getting substantially increased rates of pay, and gradually re-indentured Indians are getting as much as the average native.

An analysis of the monthly rate of pay for indentured Indians (men) on one of the large collieries gives the following result:—

Paid 50*s.* and upwards per mensem	180
Paid 40*s.* and not exceeding 50*s.*	100
Paid 25*s.* and not exceeding 40*s.*	130
Paid under 25*s.*	60

The Indians getting 25*s.* a month and over are re-indentured Indians. Those receiving 20*s.* and under are serving under their first five years' agreement. In addition to the above rates of pay the Indians have to be provided, free, with quarters and rations, of a quality and quantity approved of by the Head of the Indian Immigration Department in Natal, Mr. Polkinghorne, the Protector. The cost of food for the Indians is from, say, 14*s.* to 15*s.* per capita per mensem.

In addition to indentured Indians the mines employ a number of "free" Indians, who are employed under somewhat the same conditions as natives. The Indian is more suitable for work requiring a little intelligence than the native, but, on the whole, the native is the more desirable workman, because his greater physical strength enables him to handle the larger tonnage in the winning and moving of coal underground.

The costs of recruitment of indentured Indians are heavy. They are paid to the Government Immigration Department, and are made up as follows:—

For Indentured Indians.—Up to December 31st, 1912, 5*l.* 10*s.* per capita per annum for five years. From January 1st, 1913, 3*l.* 10*s.* per capita per annum (remainder of first five years' indenture).

Re-indentured Indians.—3*l.* 10*s.* per capita per annum for the first two years' re-indenture. 2*l.* 10*s.* per capita per annum for the second two years' re-indenture. 1*l.* 10*s.* per capita per annum for any subsequent period of re-indenture.

The above costs have to be borne by the collieries. In addition, the collieries have to pay 9*d.* per man a month for medical fees and 1*s.* a man a day for hospital fees when in hospital.

The hours of labour are nine daily, between sunrise and sunset, with a break of at least an hour for rest. The food per Indian per working day works out roughly as follows:—

Meal	·90 lbs.
Rice	1·70 ,,
Mutton	·32 ,,
Vegetables	·14 ,,
Dholl	1·16 ,,
Ghee or oil	(small)
Salt	,,

At the mine concerned, the mutton is made up of 1 lb. per week in two portions, Wednesdays and Saturdays.

Natives employed by the mines usually contract for six months at a time, and in most cases return to their homes before re-engaging for a further term of service. In Natal, there is no Native Labour Recruiting Association as in the Transvaal. Each colliery makes its own arrangements both as to agents, terms of recruiting, and as to wages paid. The premiums paid for recruiting vary, say, from 2*l.* 10*s.* to 3*l.* 10*s.* for six months boys, and as much as 5*l.* and 6*l.*, and sometimes more, is paid for boys who contract for twelve months. Natives new to mining work are of little value for a few weeks, and it is, therefore, sound economy to pay the higher premium to secure a longer period of service, as the average period of efficiency is thereby increased.

The costs of recruiting are considerably increased by the large number of desertions. No statistics are available locally as affecting the industry as a whole, but a recent enquiry indicated that the desertions amounted to an average of 12½ per cent. per annum of the number engaged during the year. Most of these desertions take place within a short time of arrival at the colliery, and, if the natives are not recovered, the colliery loses the premium, the railage, and cash advances made to the native on his signing the contract.

In Natal the Pass Laws are very defective as compared with those prevailing in the Transvaal, and representations have been made to Government by the larger industries with a view to getting a more efficient pass system established, enabling the employer to control more closely the employment of natives and the recovery of deserters. Such a system would involve a pass being issued to each native on entering service, and the issue also of a monthly service certificate. Owing to the growth of industries generally and the expansion of coal-mining, the difficulty of securing an adequate supply of native labour is increasing yearly, especially since the stoppage of the immigration of indentured Indians in July, 1912.

The native pay for underground men varies from 1*s.* 2*d.* to 2*s.* per shift, or from 35*s.* to 60*s.* per month of 30 shifts. The average cost of food for natives per capita varies from, say, 10*s.* to 12*s.* 6*d.* a head a month. In addition, a mine has to pay cost of hospitals and medicines, so that the average cost a head a month is from 50*s.* to 60*s.*, which includes pay, food, hospital, medicines, premium, and other costs incidental to securing labour. The food of a native works out somewhat as follows per working day (with variations at different mines):

Mealie meal	2·50 lbs.
Beef	·34 ,,
Vegetables	·20 ,,

Fresh meat is allowed twice a week, ½-lb. a head on each occasion. A recent analysis of the number of natives at a certain colliery at different rates of pay gives the following results:—

Paid 60*s.* a month	315 natives
Paid 50*s.* and up to 60*s.*	130 ,,
Paid 30*s.* and up to 50*s.*	160 ,,
Under 30*s.*	30 ,,

The number varies from time to time, but the above will sufficiently indicate the prevailing rates of pay.

Financial.—At the end of 1912 the total ordinary issued capital of Natal collieries was 2,396,188*l.*, preference share capital was 325,000*l.*; debentures outstanding amounted to 330,653*l.*; and temporary advances to 102,170*l.* These figures do not include three private concerns with an average capital of about 90,000*l.*

Except in case of some half-dozen companies, the colliery profits distributed to shareholders have not been satisfactory.

No dividend has yet been paid on a large proportion of the output, although some very remunerative tracts of coal-bearing ground have been worked. Notwithstanding the increased prices obtained in 1913, the dividend total has not been much increased. During the three years of lowest prices, namely, 1910-1912, the dividends distributed were 54,489*l.*, 51,100*l.*, and 71,687*l.*, respectively, as against 67,700*l.* so far declared for 1913, a year in which, according to critics, the collieries have been putting up prices to an inordinate extent.

APPENDIX IV.

STATEMENT PRESENTED TO THE ECONOMIC COMMISSION BY THE TRANSVAAL CHAMBER OF MINES ON THE FUTURE OF THE GOLD-MINING INDUSTRY OF THE WITWATERSRAND.

(*See Evidence of* MR. NEUHAUS, *Q.* 1641, *p.* 55.)

No accurate computation of the life of the gold-mining industry is possible, because there are so many unknown factors which bear upon it. The value of ore developed can be assessed with considerable precision, but below the developed area values and quantities can only be estimated, and the question of the quantity of ore which it may be profitable to work naturally depends upon the gold contents and the cost of working.

The accompanying map* of the Witwatersrand has been compiled from all available authentic data. The outcrops of the principal gold-bearing reefs are shown, and in the case of the Main Reef series the reef has been traced almost continuously from Randfontein on the West to Holfontein on the East, a distance of 62 miles. The map is self-explanatory, but on account of the small scale it was found impracticable to distinguish areas already exhausted from the ore developed or partly developed in the mines. It will be noticed that a line has been drawn which is assumed to include the ore body down to a vertical depth of 7,500 feet. The dip of the reef in the lower workings of the mines is for this purpose assumed to continue unaltered, and information through the medium of boreholes, where available, has been made use of. 7,500 feet has been arbitrarily taken because the Mines Department has intimated that it is not at present willing to consider the proclamation of ground in which the reef is estimated to lie below this depth. But there is no definite evidence to-day that it will be profitable to work at that depth, or that it will not be profitable to work at a still greater depth.

In order to form some idea of the outlook, a calculation has been made as to the potentialities of the present producing mines.† Tonnages and values have been arrived at by applying without modification to the remaining undeveloped ground the average data disclosed in the last 1,000 feet of all the workings throughout the length of each mine. No allowance has been made for any possible flattening of reef or alteration of yield which may occur. Working costs are taken at 18·61*s.* At present working costs (which average 18·61*s.*) there would appear to be about 550,000,000 tons of ore to be worked in the mines referred to, which will yield in gold more than the cost of working. It is noteworthy that this involves the expenditure of nearly 500,000,000*l.*, almost entirely in this country, spread over a number of years. Besides the tonnage available on this basis of calculation, there is in all the mines a large quantity of ore below the value referred to. A fall in working costs would render it possible to work a certain quantity of this ore.

Moreover, in this estimate no account is taken of mines developed and equipped which have been closed down because the working costs exceeded or equalled the yield. In this connection it should be stated that several large properties are now being worked with a bare margin above cost. Any increase of cost would necessitate the cessation of their operations.

Given an adequate labour supply, it would seem that for the next five years there is no reason that a rate of crushing equal to about 28,000,000 tons per annum, roughly speaking the present annual milling capacity, should not be dealt with; but after that date, owing to the exhaustion of some of the shorter-lived properties, the annual output would decrease, and it is estimated by the year 1930 it would fall to about half the figure quoted.

It may be well to emphasise the fact that the calculation referred to applies exclusively to *present producing mines.*

Besides these mines there are three areas, comprising a total of 4,140 claims, in the East Rand locality, in which development is proceeding at the present time. Their combined prospective milling capacity may be taken at 1,800,000 tons per annum. It is probable that half this tonnage may be dealt with within the next few years.

There are eight other properties, mostly in the same locality, comprising an area equal to 6,420 claims, in which a considerable amount of development work has been done. All of these claims are now lying idle because the funds provided for development have been exhausted, and the ore values so far encountered have not been sufficiently encouraging for investors to provide further capital under existing conditions. It is impossible to predict the result of further exploration in these claims, but there is no doubt that any marked decrease of working costs brought about in the present producing mines would have a great bearing upon the provision of further funds for those properties.

Besides these 10,560 claims there are in the same district, namely, the far Eastern Rand, approximately 86,000 claims under which the Reef is known to lie at varying depths, the mining rights of about four-fifths of which are vested in the State. It is impossible to forecast, even within wide limits, the amount of workable ore which this large area will eventually produce, and consequently the extent to which it bears upon the future life of the Witwatersrand. A good deal of exploratory work by means of boreholes has been carried out, and although prospecting through this medium is admittedly very unreliable, the results have not been encouraging, and therefore a considerable portion of this area must be regarded as of doubtful mining value. This portion of the Witwatersrand contains only one reef, lying at a slight inclination from the horizontal, and therefore, at best, the tonnage per claim will be considerably less than that of the claims in the Central Rand.

The areas above referred to on the far Eastern Rand contain hundreds of millions of tons of ore, but an enormous capital outlay, the extent of which it is needless to discuss now, will be required for its development. Indications as to value are admittedly very meagre. The little evidence which they do furnish is not of a very favourable character. It is also of some interest to point out that the characteristics of this region are not quite similar to those of the Central Rand. In the East Rand the gold is deposited largely in specific sections, some of which are likely to contain good values, while others are likely to be practically barren.

On the South-Western Rand there are also unproved areas of which little is known. Bore-hole results have not, on the whole, been encouraging. The sinking of a vertical shaft was started on the Western Rand Estates, but owing to the large quantity of water encountered in the dolomite, work was suspended. The data available in regard to this locality do not warrant any estimate as to the part it will play in the history of these fields. Stress should again be laid upon the fact that bore-hole results are of little value

* Not attached.

† This refers to 42 out of the 51 gold mines at present producing on the Witwatersrand. The remaining nine mines do not materially affect the position.

beyond proving the presence of the beds. There are instances of bore-hole values having been unsatisfactory, where the subsequent opening up of the properties by shafts and drives has disclosed profitable mines. On the other hand, there are cases where good indications from bore-holes have not been supported by subsequent operations.

There are other potentialities, such as the Kimberley Reef series, which is certainly low-grade in the Central Rand, though portions of it have been profitably worked on the Western Rand. The same remarks are no doubt applicable to the sedimentary deposits of Potchefstroom and Klerksdorp.

The essential point to bear in mind in attempting to form any estimate of the future of gold-mining in this part of the Transvaal is that under the existing working conditions the field is not attractive to capitalists. In this connection it is pertinent to point out that a shilling reduction in working costs represents 1,400,000*l.* of increased profit in working the 28,000,000 tons referred to as the annual milling capacity of the present producing companies. It is quite true that any increase of profit does not greatly affect the South African public, because it is not largely interested in the proprietorship of the gold mines. The indirect benefit, however, of increasing the profits on the existing mines may be important from the standpoint of South Africa, because it is from the shareholders in the existing producing mines mostly that capital must be looked for for the working of the unexplored areas, and the making of their present holdings more remunerative would be a considerable inducement for them to venture further capital in new enterprise.

It is therefore suggested that as the gold mines at present provide such a large proportion of the sustenance for the population of this country, and almost exclusively through the distribution of their working costs, every effort should be made to lower the cost of production in the existing mines with the object of attracting capital for the opening up of other mines which may take their place as the period of exhaustion arrives.

That the mining industry has been made to bear enormous burdens is incontestable. Direct and indirect taxation through the Customs, railways and profits tax, heavy outlay owing to the immense number of mining regulations that have been promulgated, and expenditure under the Miners' Phthisis Act, are all factors tending to discourage new mining enterprise. Under the system which has grown up the white working classes live upon a higher plane than is customary in other countries, with results which are reflected in the wages bill of the mining industry.

Attention is drawn to these matters because the general community appears apathetic concerning, or indifferent to, mining costs. Their interest, regarded superficially, lies, it is true, rather in the amount spent than in profits earned, but holding in view the limited amount of ore workable at present cost per ton, it becomes evident that the permanent interests of the country, and of commerce, are deeply concerned in the attraction of fresh capital for mining enterprises. Upon the expenditure of such capital, and in the subsequent working of any properties that may be brought to the producing stage, abiding welfare depends.

APPENDIX V.

STATEMENT PRESENTED BY THE TRANSVAAL CHAMBER OF MINES TO THE ECONOMIC COMMISSION SUMMARISING THE POSITION REGARDING THE SYSTEMS OF UNDERGROUND CONTRACT WORK AT PRESENT IN FORCE ON THE MINES

(*See Evidence of* MR. NEUHAUS, *Q.* 1657, *p.* 56.)

At the present time many Consulting Engineers and Managers are in favour of a contract system of some kind for certain classes of white employees, and others are opposed to it.

Nearly all the Consulting Engineers have stated that, of the three systems of contract, they are in favour of the third system mentioned in the annexed statement, namely, day's pay plus bonus, or day's pay plus contract.

The Consulting Engineers consider that, with white employees generally on a supervisory basis, some incentive, dependent on the work done, should be given, and natives, where found advisable, placed on piecework, the disabilities and restrictions under which the native now labours being removed.

Irrespective of any difference of opinion as to the most effective basis upon which labour should be employed, it is unanimously and strongly held that the determination of the system of payment for the work performed should not be the subject of any legislative interference.

Contract systems in stoping, developing, and shaft-sinking. Witwatersrand Gold Mines.

There are three systems of contract in force on the mines at the present time, viz.:—

(1) *Flat Contract:* Say, *Machine Stoping.*—Contractor is given a price per fathom, and is charged by Company at set rates for boys and stores, the Company usually undertaking to supply tools, compressed air, and other necessaries free.

The Contractor receives the surplus of gross earnings over costs charged, however big it may be, and almost invariably men whom the company thinks have experienced bad luck, and have earned little or nothing under their contracts, are "made up" by the Company—*i.e.*, they are given voluntary free grants by the Company, bringing their earnings up to, say, day's pay rate.

(2) *Flat Contract with Guaranteed Wage:* Say, *Machine Stoping.*—This is exactly the same as (1), except that the Company guarantees that if the Contractor earns a surplus less than the 20*s.* or other figure set it will make him up to that figure.

The price per fathom in this case would be the same as in (1).

(3) *Day's pay plus contract and day's pay plus bonus:* Say, *Machine Stoping.*—Under this system the Contractor is paid a day's pay rate, say, 12*s.* 6*d.* per shift, quite apart from his contract, and in no way affected by the gains or losses that he may make on the contract. Over and above the day's pay rate he is then given a contract at a rate per fathom calculated so that, with reasonable efficiency, he can earn thereon the difference between 12*s.* 6*d.* per shift and the ruling standard for the class of work, or by extra efficiency he can earn a considerable increment on that standard.

The advantage of this system is that while the contract feature ensures diligence on the part of the workman in the disposal of his own and his natives' time and economy in the use of stores, it at the same time ensures him against total loss, and since only a portion of his earnings are to be made on the contract it follows that the contract price per fathom is set lower than in the case of the other systems, the effect of any error in setting the price being thus considerably reduced.

With this system, as with the other two, it very frequently happens that if the Company considers that it is a case of hard luck when a workman does badly on his contract, it practically cancels the contract and makes him a free grant.

APPENDIX VI.

Additional Statement by Mr. R. Shanks, Inspector of White Labour, Johannesburg, on the subject of Objections to the Contract System of Payment of White Miners on the Witwatersrand.

(*See* Question 1892, p. 66.)

Union of South Africa.
Government White Labour Bureau,
Johannesburg,
4th April, 1914.

Sir,

As an addition to my statement sent in, and my replies to questions before your Commission, I would present one other reason why I consider the miners' contract system objectionable.

All are ready to admit that the more dangerous the occupation the greater is the necessity for caution in carrying on the industry. Special rules and regulations are laid down and enforced in many industries, in varying forms, to meet the special requirements experience has shown to be necessary. Private industrial establishments formulate rules which have to be observed, and where private firms have neglected ordinary precautions legislative measures have been passed to compel them. Occupational diseases and dangers are often difficult to explain in a way to attract public attention sufficient to arouse public sympathy and sentiment on behalf of the victims. Until that is accomplished legislative action is seldom initiated.

It is contended by some that the employer (the capitalist) is absolutely indifferent so long as he can get his profit. My view is that his profit is equally assured under the best accident preventives.

Compensation for death and injuries are common in nearly all civilized countries, but in many instances —in most instances—the public have to carry the burden in the form of increased prices. The extraction of gold from the reef is perhaps the most notable exception to the rule. Compensation, therefore, can be estimated with comparative accuracy and ceases to be a burden to the average employer.

It is not so in the case of the gold-mine owner—the value of his product being fixed and practically immovable. That being the case, would it not be better for the mine-owner to produce a smaller amount of gold per miner employed and save an equivalent (or more) in compensation?

I find in the Government Mining Engineer's Report for the year 1912, as the result of accidents:—

	Whites.	Coloured.			Per working day.
Killed ...	54	791	= 845	—average	2·72
Injured ...	274	1,641	= 1,915	,,	6·17

I find in the same report, within the Union, compensation was paid for killed and injured 133,768*l*. Of this amount the Transvaal (chiefly the mines) paid 120,895*l*., the Transvaal share being 90·39 per cent. of the whole. In the same report the Government Mining Engineer states that the death-rate from phthisis is *at least* ten times as high as from accident.

To what extent accidents and phthisis may be attributed to carelessness, caused or increased by the stimulating gamble to secure a big cheque at the end of the month, may be impossible to estimate, but it does not require a stretching of the imagination to conclude that "contracting" in any hazardous occupation is, and must be, conducive to accidents, accompanied by indifference to the laws of health.

Compensation for accidents or phthisis does not represent the total loss to the mine-owner. Where accidents are preventable, and where time and care are given for that purpose, the owner stands to gain in other respects.

In varying degrees in addition to compensation he has to replace destroyed tools and plant; take away from their regular occupations employees to meet the emergencies, and see to the removal of the obstacles in order to continue operations as formerly; to increase expenditure in labour and material to render the place safe once more for employees to enter; and meet all other expenses resulting from dislocation in the mine.

An average result expected from miners should be as easily established as in other occupations. The greater the risk from accident or disease, the less justification there is for supporting a system which, from its very nature, tends to encourage a class, many of whom are not by any means influenced by the quality of caution.

To argue on different estimates as to the saving or loss will not solve the question. The adoption of the day's pay system by some mine or group of mines, for a reasonable period would, in my opinion, prove the fallacy of the present contract system. The loss of life in itself is not a question to be valued only on the pounds, shillings, and pence basis.

I have, &c.,
R. Shanks,
Inspector of White Labour.

The Secretary,
The Dominions Commission,
Johannesburg.

APPENDIX VII.

Memorandum on "Segregation," by Mr. Howard Pim, Johannesburg.

(*See* Question 2267, p. 82.)

The central problem of the Government of South Africa is to devise such an organization of the State as will enable the white and native races to develop side by side in equal freedom.

As long as the native remained unskilled the many problems of contact were in the background, and so far as the native labourer was concerned Government proceeded on the assumption that he was nothing more than a tool to be taken up or laid aside at will. The period during which this view of the native prevailed was extended by his habit of only working for a limited number of short periods, too few and too short to enable him to become a skilled labourer.

It is now becoming obvious that government can be no longer conducted upon this hypothesis, for as the native works for longer periods and acquires skill he comes into competition with whites, and fills more and more the semi-skilled positions through which the white youth could become a skilled workman.

It is this development which has given rise to the cry for segregation, and for the man in the street this word means not so much territorial separation as the segregation of native ability—the prohibition by law of native competition in skilled work of any kind. As long as the native assists the white and remains unskilled, make use of him; so soon as by acquiring skill he becomes in any sense a competitor forbid him to exercise that skill and cast him aside. In his mind, segregation means the colour bar in its most drastic form.

The mere statement of such a theory of native government is its own refutation. If given effect to it might not involve a condition of things which would be described by any accepted definition of the word slavery. It certainly would lead to just that deterioration of the white race which is the admitted result of slavery.

The next proposal that calls for notice is territorial segregation with prohibition of intercourse. On this theory South Africa would be apportioned between whites and natives, and each of the two communities so formed would be self-supporting and self-contained.

In white districts all work would be done by whites, and *vice versa*. Obviously this would involve a fundamental change in the lives of our white population, and to justify even an attempt in this direction there would have to be a strong feeling and a widely expressed public opinion in its favour. These do not exist, and I am not aware that any of the advocates of this proposal have even taken the initial step of doing without native assistance in their households. The Government might regulate such a movement if it once took shape, but could not initiate it.

A close white supervision would also have to be exercised over native districts. This would inevitably develop, and probably result in the gradual approximation of society in these districts to the state of things which prevails throughout South Africa as a whole to-day. The native district would become the competitor in place of the (native) individual.

It is just possible that such a policy might have proved effective if the whites in this country had never employed native labour, and if the supply of white labour available had been accepted as the factor governing the opening up of the country and the development of its industries. But this was not done, and every possible inducement was offered to the native to become a labourer, until to-day he is the foundation upon which rests the whole structure of South African economic life. To my mind it would be impossible to turn the clock back and to start all further South African development on these new lines, but at the same time the special dangers to the white community, which are features of the present state of things, must not be ignored. Dependence upon coloured labour tends to degrade the white.

Action in either direction here indicated being unwise, the natural tendencies at work call for consideration, and there is no doubt whatever that both whites and natives desire more definite territorial segregation. In many districts the conditions prevailing to-day are unsatisfactory, native lands and white being intermingled — a condition disliked by both; and this desire for segregation is not confined to the whites or peculiar to South Africa. It is even more strongly felt among the native races owing to the local concentration of their interests. The American negro manifests it also, and in the United States black districts tend to become blacker both in town and country.

To deal with this position the Union Government last year passed the Natives Land Act (No. 27 of 1913). It provides (1) that, except with the approval of the Governor-General, no land or rights in land shall pass from natives to whites, or *vice versa*, until Parliament shall have made provision for such transfer in suitable cases; and (2) that the Governor-General shall appoint a Commission to enquire and report as to the areas within which native and white occupation should respectively be forbidden. This Commission is now at work and its report is awaited with interest. Power is also given by this Act to the Governor-General to purchase land or interests therein for the purpose of establishing any new white or native area, and a schedule contains a list of the areas within the Union now set apart for native occupation.

This Act has not met with universal approval either from whites or natives, and the general basis of the criticism it has met with may be summed up by saying that the value of the Act must altogether depend upon the wisdom with which it will be administered, and both races have doubts on this point. This practical question is now before the country, and obviously it can only be worked out in detail and on the spot wherever native and white lands are intermingled.

The other practical issue which demands consideration is the policy to be followed with regard to locations. Should the native be encouraged to remain in his reserves with his family and thence come out to work, or should he be encouraged to migrate with his family to locations reserved for him in the neighbourhood of white centres of employment?

In favour of the locations it is pointed out that if resident there he will become a more permanent and reliable factor in the labour market, being wholly dependent on his wages for a livelihood. A considerable number of natives at the present time are also themselves in favour of locations, saying that as they have lost their cattle their home is at their work and they would wish to live near it. (*See* Economic Commission Report, paragraph 52.) It is also alleged in this connection that native reserves may become a menace to the surrounding white populations.

On the latter argument little importance need be placed. Secure the native in his reserves, and thereby give him a definite stake in the country, and he will not be likely to jeopardise his position, especially as, owing to the outside demand for their labour, they are at all times secure against starvation.

With regard to native reserves it must also be remembered that in certain cases, the most important of which are Basutoland and Pondoland, the rights of the Crown are limited to the rights which the natives themselves have voluntarily granted. So recently as 1894 the Pondos, until then an independent tribe, agreed to be ruled by the Colonial Government, and the Basutos, after successfully defending themselves in 1880–1881 against the attempt of the Cape Colony to disarm them, petitioned the Imperial Government in 1884 to administer their country.

As a result of the natural causes alluded to, in all probability locations will increase in size and importance, and perhaps the native population will increasingly desire to free itself from tribal restraint, but the advantages of the reserve must not be forgotten. On this point a quotation may be given from a paper read by me before the British Association in 1905:—

> "In the location he" (the native) "is more closely huddled together than he would be in his own country and finds the only work to his hand is more strenuous and more exacting than that to which he is accustomed. He also finds himself in surroundings among which his native customs have no place, and is compelled to purchase from the white man the food which in his own country he and his family grew with their own hands. What the white man gains, therefore, is little more than the labour required to pay for the food which under reserve conditions the natives themselves produce. . . . In a reserve the native lives under conditions which he understands and has created for himself. Look forward a few years. For a time the location consists of able-bodied people, but they grow older; they become ill; they become disabled; who is to support them? They commit offences, who is to control them? The reserve is a sanatorium where they can recruit: if they are disabled they remain there. Their own tribal system keeps them under discipline, and if they become criminals there is not the slightest difficulty in bringing them to justice. All this absolutely without expense to the white community. . . . As time goes on these location burdens will increase and the proportion of persons in the locations really able to work will still further diminish. The number of actual workers, taking the less healthy location conditions into account, will therefore be absolutely less than in a population of equal numbers in a reserve. . . . As the native in a location will have to support his family, it means that his wages will have to be sufficient to support them in addition to the worker. If this family lived in a reserve they would all take part in the growing of their own food, so it can hardly be supposed that location conditions will lead to a reduction in native wages. . . . Again, the field work in the reserves is mainly performed by the women and children. In locations what work can they find to take the place of this, and how can we expect them to be equally healthy under location conditions?"

Here, then, is a case in which tendencies should be carefully watched, and for the supplying of suitably regulated locations as they are required. This would appear to be a far wiser policy than perhaps to bring about a violent disturbance of native life by bringing pressure to bear to induce them to leave their reserves for locations.

It must be remembered that these races have become part of our present South African social system upon a basis fixed for them by us, and for which their own social system provides no precedent. The assumption, that because some particular line of action appears

to us logical or advisable it will also similarly appeal to the native mind, is therefore quite unsafe.

Three conclusions of my British Association paper may perhaps be quoted:—

"(1) That the differences between the native social system and our own are so great that the two can never form parts of one social organism any more than that the races can amalgamate.

"(2) That the task before us is that of regulating native custom and encouraging all tendencies we know to be sound, as they manifest themselves.

"(3) That in a wise extension of the reserve system lies by far the most hopeful field for native development."

HOWARD PIM.

Johannesburg,
April 16th, 1914.

APPENDIX VIII.

STATEMENT HANDED IN BY MR. R. W. SCHUMACHER WITH REFERENCE TO THE AMOUNT OF MONEY TAKEN HOME BY THE NATIVES AFTER HAVING WORKED OUT THEIR PERIODS OF ENGAGEMENT ON THE MINES OF THE WITWATERSRAND.

(*See* Question 2330A, p. 87.)

Various estimates have been made, but all are very unreliable, and the following extract from the evidence given by the Director of Native Labour before Mr. Buckle, the Chief Magistrate of Johannesburg, who was appointed to act as a Commissioner to enquire into native grievances, will best show the difficulty of arriving at any reliable information on the subject:—

"(*The Director of Native Labour.*) Too large a proportion of native earnings are spent here on the Rand, and it is better from every point of view that as much money as possible should be spent in the area from which they are recruited.

"This matter has a very important bearing on the labour question generally. When I have addressed meetings in the Native Territories, the older natives, those who are dependent largely upon the earnings of the younger men, have invariably remonstrated with me as regards temptations placed in the way of natives to squander their earnings and get into debt; that, before they return home, they are required to pay those debts, with the result they go back with the proverbial concertina. That is the native way of putting the position to one. Things are not quite as bad as that. I estimate that about 12*l.* is taken away by a native who has worked, we will say, nine tickets; but, still, too large a proportion of their earnings is expended here, and largely on trash.

"I have got a schedule here from you about that (S. A. M. P. 20). Do you know how this has been arrived at?—It has been arrived at by consulting the inspectorate, who were asked to take the advice of any people with experience of native labour on the Rand, people such as compound managers, Marwick and Morris, &c.

"It is very largely a matter of opinion, is it not?—Very largely. It must necessarily be so. The natives, in the first place, either take their money home themselves when they go home, and they are peculiarly secretive as to how much they have on their persons, or they send it by their friends, and, again, the news of how much is going by their friends naturally does not travel very far, as it is sent through a remittance agency.

"There are enormous differences here in the estimates. One, for instance, puts the average balance taken home, Johannesburg East, after 180 shifts as 3*l.* 10*s.* A little further down you will get 9*l.* He is referring to an East Coast native particularly.

"I take it, all these below are East Coast also, and they run up to 6*l.*, 7*l.*, and 8*l.* Why they should take 11*l.* 12*s.* from Johannesburg West and only 3*l.* 10*s.* from Johannesburg East does not seem clear.

"The difference of opinion is as to how much they spend on luxuries. Johannesburg West thinks they spend 3*l.*, Johannesburg East thinks they spend 10*l.*?—Yes."

Evidence was also given before Mr. Buckle by Mr. H. M. Taberer, the General Superintendent of the Native Recruiting Corporation, as follows:—

"(*The Commissioner.*) Have you any means of forming an estimate of what becomes of the native's wages up here; how much he spends whilst he is here, and how much he generally takes home?—No, sir. From general observation when travelling round I know that it varies enormously. I have had storekeepers on the Rand come to me and beg me (more than beg, sometimes) to alter the distribution of natives on the mines, because they say the Pondo will spend nothing, and takes 80 or 90 per cent. of his earnings to his home. The Shangaan spends 75 per cent. of his wages. The Pondo and the Fingo look after their money very carefully. The Zulu is fairly careful. The Shangaan and the Natal boy will spend almost everything.

"Who are the Natal boys?—I am afraid I have been accustomed to treat them differently from the Zulus. The traits of the Natal boys are different from the Zulu.

"You are distinguishing between the Zulu of Zululand, and the Zulu in Natal?—Yes. The Zulu of Zululand is not so extravagant as the Zulu boy of Natal. A great deal depends on his position in the family. In Zululand the patriarchal system continues. In Natal they have been cut up and individualism has asserted itself. In Pondoland the chiefs have more influence with their people, and where that is so, it is reflected on the members of the family, and for that reason the Pondo is dutiful towards his family, which he respects. The Pondo is the one native who looks after his money.

"What is the characteristic of the Xosa?—He likes to spend his money. I should say that he does not take more than 30 per cent. home. That is, however, a guess.

"He, of course, has been in touch with civilization a much longer time than the Pondo.

"They are situated west of the Pondos?—Yes.

"Can you trace the causes of their financial habits to any particular rule. Can one say particularly that those natives who come most into contact with civilization have the most extravagant habits, or would that not be a correct summary?—I would not care to say it was extravagance. What would be a luxury to a Pondo might be a necessity to a Xosa.

"Are the natives who are longest in touch with civilization the freest spenders, and the further you go back to the primitive savage, is it the case the more careful you find they are?—Yes, generally.

"How do you reconcile that with the Shangaan. I thought he was the most backward of the lot?—That is, speaking generally. Take the Fingo, who has been the longest among Europeans, he is the Jew of the natives. He is most careful with his money, and if he lends you 1*l.*, he wants 2*l.* for it in four days.

"Did they split off from the Basutos?—Yes. A lower section of the Basuto tribe.

"Has the Basuto got the same characteristics?—He is careful of his money, much more so than the Xosa. It may be that he is very nearly as careful as the Fingo.

"The amount of money which is taken by the native, as compared with the amount which he spends on the spot here, is extremely large, and there exists no means of estimating it at all, even approximately?—The closest way you would get at it is by examination of remittances made by natives through the Post Office and Native Affairs remittance and ourselves, and getting the turnover from the stores alongside the mines; that would give it to you approximately.

"I understand that these remittance agencies handle only a small proportion of the total pay, but that the native practice is to give it to their friends going home?—Yes. It is more generally conveyed in specie than through a remittance agency.

"What do you consider the necessary expenses of the native up here. Take the 180 shifts boy—that is the engagement you make with him. During that time all the necessaries are supplied, but he has to supply himself with a certain amount of clothes?—Very little. He supplies himself with an outfit before he leaves. He gets a pair of boots, trousers, and, perhaps, a shirt.

"What is the cost of that outfit?—25*s.* to 30*s.*

"Wear and tear of clothes in mine work is very great?—Yes. I do not know what price mine trousers would cost, I should think 4*s.* or 5*s.*

"Apart from clothes, I cannot think of anything else in the way of necessaries?—No, there is nothing absolutely necessary. I think the climate necessitates him providing himself with a blanket, especially in the winter time, and if he is working on the surface he wants a coat. Then, of course, the native likes to return a little better provided for than when he left. He generally fits himself out with a new suit.

"That he does at the last moment?—He takes it home new.

"He would be wearing that suit for a good many months at his kraal?—Naturally.

"I was thinking of the native's expenses; that is, in fact, a saving?—Yes.

"The average rate on the mines is about 2*s.* per shift?—The last computation was 1*s.* 11·7*d.*, I think.

"So that the 180 shift boy would earn 17*l.* or so?—Yes.

"He probably started 5*l.* in debt; his railway fare, food, &c. would come to about 25*s.* to 30*s.*, that would leave him 11*l.* 10*s.*; if he spent 2*l.* in clothes here, that would leave him 8*l.* 10*s.*

"How long does he take to work his 180 shifts—eight months?—Yes, under eight months.

"He would spend about 10*s.* per month on luxuries and he would only be likely to take home 4*l.* with him?—That is if he spends any of it up here.

"As far as I can see, he is hardly likely to take more than 5*l.* or so home?—Lots of them do. Some of them don't spend anything. If the Pondo spends 5*s.* or 10*s.* during the whole of his six months' contract, the storekeepers consider him to be a spendthrift. He takes home practically everything that he earns. This information I get from the storekeepers, who are persistent in their endeavours to get me to alter things."

APPENDIX IX.

MEMORANDUM FROM THE WITWATERSRAND NATIVE LABOUR ASSOCIATION, LTD., REGARDING THE AMOUNT OF MONEY TAKEN HOME BY EAST COAST NATIVES AFTER THEIR PERIOD OF SERVICE ON THE WITWATERSRAND.

(*Put in by Mr. R. W. Schumacher, see q.* 2330A, *p.* 87.)

It is a most difficult matter to arrive, with any degree of accuracy, at the average amount of money taken home by a Portuguese native after completing his period of service on the Witwatersrand, as, naturally, the native is very unwilling to furnish any details as to his savings.

(1). In 1906, the Witwatersrand Native Labour Association, Limited, working on the basis of the value of kaffir truck and Portuguese native wine imported into the Province of Mozambique, plus the amount of hut-taxes paid, arrived at the conclusion that natives took back between 30*l.* and 35*l.* per head. These figures, however, were unsatisfactory in that no allowance was made—

(1) For wages earned within the Province of Mozambique.

(2) For the amount of goods purchased in kind, *i.e.*, with mealies, mandioca, and other local produce.

(2). In 1909, Mr. B. G. Lloyd, the present General Manager of the Witwatersrand Native Labour Association, and then the Association's District Manager at Lourenço Marques, in giving evidence before the Liquor Commission, stated that the amount brought back by returning natives was, in his opinion, about 40*l.* per head, and the basis of this calculation was the same as in the previous case.

(3). The only other method of determining the amount carried back is by examination, and cross-questioning all returning natives. This course has been adopted both by the Association's officials, and by the Portuguese Authorities in the Province of Mazambique. The conclusions arrived at must, however, be taken with a very large amount of reserve, as a native, when questioned, is not only chary of stating what amount of money he has on his person, but also looks at the question from a different point of view from that of a European. For instance, a native may possibly be taking back a total amount of 20*l.*, and in reply to enquiries will advise his questioner that he is only in possession of 8*l.* In this reply he considers he is quite truthful as the balance of 12*l.* has already been allotted by him for particular purposes, such as purchase money of a wife, hut taxes, debts, &c., and will not be counted by him as part of his savings.

In 1909, the Association's officials at Johannesburg carefully examined a gang of 1,600 East Coast repatriates as to the amount of their savings, and the result gave an average of 8*l.* per head. At a little later date, a gang of some 1,500 natives were dealt with in the same way, and the result gave a total of 13*l.* per head.

In January, 1910, Dr. Pinto Coelho, the Intendente of Emigration for the Province of Mozambique, stated that, as a result of experiments made by the Emigration Authorities at Ressano Garcia, it was found that returning natives brought back with them an average amount of 20*l.*, or, roughly, 800,000*l.* annually. The Intendente added, however, that in the calculations, money crossing the border by other channels than through Ressano Garcia had not been taken into account.

(4). Kaffir storekeepers on the Rand admit generally that the Portuguese native spends on an average, say, 20*s.* per month. His average wages are in the neighbourhood of 55*s.* per month, and his average period of stay on the Witwatersrand is 18 months. From the above figures it would appear that the amount saved and taken back in one way and another must be in the neighbourhood of 30*l.*

It will be noticed that this figure corresponds very closely with the figure arrived at by the Association in 1906.

Johannesbury, 8th April, 1914.

APPENDIX X.

LETTER (WITH ENCLOSURE) FROM MR. R. W. SCHUMACHER ON THE SUBJECT OF THE INCREASE OF TEMPERATURE WITH DEPTH IN THE WITWATERSRAND MINES.

Johannesburg, Transvaal,
9th April, 1914.

DEAR SIR EDGAR,

Increase of Temperature in Depth.—It occurred to me afterwards that my reply* to you on this subject was not as comprehensive as it should have been. The increase in temperature of 1° F. for every 254 feet vertical depth refers to rock temperatures on these fields. The point is that by a proper system of ventilation the air temperature may be kept well below the temperature of the rock. I am sending you herewith memorandum on the subject of to-day's date by our Consulting Engineer, Mr. H. S. Martin, together with a number of enclosures which deal with the subject very thoroughly. Perhaps you will be kind enough to regard these papers and this letter as an appendix to the statement* which I handed to the Commission on the 4th instant. There can be little doubt that with a good system of artificial ventilation mining can be continued on these fields to quite unprecedented depths.

Believe me,
Yours, &c.,
R. W. SCHUMACHER

Sir Edgar Vincent, K.C.M.G.,
Chairman, Dominions Royal Commission.

* See q. 2342, p. 88.

* Printed on pp. 82-84.

The Corner House,
Johannesburg,
9th April, 1914.

Dear Sir,

Rock Temperatures and Mine Air Temperatures.

A good deal of reliable information is recorded dealing with this subject, and several papers have been written.

The most up-to-date and reliable information, I think, is to be found in the attached paper* by Messrs. James Whitehouse and W. L. Wotherspoon, published in the Journal of the Chemical, Metallurgical, and Mining Society of South Africa for May, 1911. This paper was the outcome of information I was compiling to compare the Village Deep Mine health conditions prior to the running of the mechanical ventilator with the improved health conditions after the fan was running. Great care was taken at the time in getting accurate information, and I am sure you will with great interest read the paper.

The more recent observations in the Witwatersrand area indicate that the estimated rate of mean temperature rise is now represented to be 1° F. for 254 feet vertical depth, the temperature of the rock varying from 65° F. at 200 feet to an estimated temperature of 98° F. at 7,000 feet depth, whereas former results indicated 1° F. for 208 feet vertical depth.

The most recent rock temperatures I have in my possession were taken last year for the purpose of the Rand Mines Statistics Book, and are shown on the attached blue print.* These figures indicate the rise in temperature to be 1° F. for 268 feet.

The attached table* shows the mine air temperature in the Village Deep Mine, taken in February of this year.

The temperature of the air in a downcast shaft varies considerably from mid-day to the early hours of the morning. This variation is felt for some distance along the main intake airways in the mine and at considerably below the rock temperature. However, as the air traverses the mine workings the temperature increases. The amount of increase depends upon the quantity of air circulated and the rapidity with which the mine air is changed. The air contained in the workings of mines is being continuously deteriorated by the processes of breathing, combustion of lamps and candles, the oxidation of organic and mineral substances and blasting, and for this reason requires to be continuously renewed, and calls for the introduction of a liberal and continuous supply of fresh air.

The Village Deep figures show that at the bottom of the Turf Shaft the rock temperature is 82° F. at a depth of 4,000 feet. The air temperature at the shaft bottom and along the 16th level, and a few hundred feet from the shaft bottom, is 70° to 71° F., and after the air has circulated the mine workings the temperature at the foot of the upcast shaft, the end of the main return, is only 72° F. Higher temperatures are recorded up to 87° F.—5 degrees higher than the rock temperature. This is due to the air not being changed often enough in these places, these temperatures being taken in dead ends of drives where the main current cannot sweep and the ventilation depends almost entirely upon the exhaust air of the machines or open cock from the compressed air mains.

Sluggish ventilation in deep mines must result in air temperature exceeding rock temperature; on the other hand, with abundance of ventilation and good currents of air throughout, the air temperature can be kept 5° to 10° F. below rock temperature.

It is important to consider the quantity of moisture the air contains, for that decides the temperature at which men cease to work efficiently. We want large volumes of air circulating at a good velocity, and as free from moisture as possible.

The highest temperature at which work was carried on in the St. Gothard tunnel was 90° F., and this was considered to constitute the limit for men.

It is difficult to carry on work in air saturated with water vapour at 77° F., although men can bear a temperature much higher in dry air. Under high temperature conditions, where the air is saturated with moisture, the hours of shift would probably have to be cut down by 50 per cent.

Before the mines of the Rand will be able to work to any extent at depths of 6,000 to 7,000 feet some means of artificially cooling the air may have to be devised, and undoubtedly the mine workings will have to be so arranged that full advantage of the ventilation can be obtained. At present, even on the best ventilated mine on these fields, only 50 per cent. of the air circulated is doing useful work, owing to it filtering through large worked-out areas which cannot be closed off altogether.

Yours faithfully,
Hy. Stuart Martin,
Consulting Engineer,
Rand Mines, Ltd.

R. W. Schumacher, Esq.,
Johannesburg.

* Not reprinted.

APPENDIX XI.

Memorandum furnished by Mr. R. W. Schumacher on Trading Stands on Mining Properties in the Transvaal.

(*For Mr. Schumacher's oral evidence, see p. 82 et seq.*)

This memorandum is divided into two sections.

Section 1 deals with the position of stands prior to the passing of the Act now in force—Act 13, 1910.

Section 2 sets forth the position under the existing Act.

Section 1.

Prior to the Gold Law of 1898, any person was entitled to apply for a stand on ground held under *Mining or other Title*, but under that Law (No. 15 of 1898) trading on *mining ground, i.e.*, ground held under Mijnpacht of Claim Licences, was prohibited.

Provided licences (which are either at the rate of 7*s.* 6*d.* or 11*s.* 3*d.* per month, according to the size of the stand) are paid regularly on these stands, trading can be continued indefinitely unless any regulations governing trading on mining areas are contravened. Stands still exist which were created under this Law.

In 1905 it was recognised that a certain amount of trading was being conducted on sites which were not legally set aside.

A Board was constituted under Act 35, 1905, Section 14, which permitted of the continuance of such trading until 31st December, 1906. It is understood that some 35 traders were affected.

In 1907 an Ordinance (No. 35, 1907) was passed amending Act 35, 1905. Section 14 of the 1905 Act was repealed and an opportunity given to the 35 persons dispossessed under the 1905 Act to obtain trading sites.

Under Sections 78–80 of Act 35 of 1908 (Gold Law), and which are still of force, any white person is at liberty to apply to the Mining Commissioner for a dwelling or business stand on *open proclaimed land*. The licences payable thereon range from 11*s.* 3*d.* to 21*s.* per month, according to the size of the stand, the freehold owner of the ground on which such stand is situate receiving one-half of the licence moneys.

Under Section 82 of the 1908 Gold Law trading on mining ground was forbidden, except—

(*a*) On stands acquired under Law No. 15 of 1898 (Gold Law) or a prior law previously referred to.

(*b*) On stands set aside by the Government Trading Board under Sections 77, 83, and 84 of the 1908 Act.

As regards (*a*), the freehold owner of private land on which a stand is situate receives three-fourths of the stand licences paid to the Mining Commissioner.

As regards (*b*), *the Trading Board appointed in terms of* 1905 *Gold Law was empowered to select stands on mining ground*, provided the ground so selected was not required by the holder of the Mining Title for mining or purposes incidental thereto. The Board then had the right to call for applications for the stands so set aside, and to issue trading certificates to approved applicants. These certificates held good up to the 31st December of the year in which they were granted. At the present time no further stands

are created under this law, but the trading certificates granted hereunder still exist. These certificates are renewable by the holders thereof on the 1st of January in each successive year, provided application is made to the Government each year and receives its approval; the Trading Board only has the right to refuse such applications if the conditions of grant have been contravened by the holder of a certificate. Transfers of certificates from one party to another are also subject to the approval of the Board.

The rent of trading stands varies from 11*s.* 3*d.* to 21*s.* per month, according to the size of the stand, and the freehold owner of the ground on which a stand is situate receives one-half of such rental.

In addition to the above Stand Licence the holder of a certificate pays to the Government an annual rental which is at present based on 3 per cent. per annum of takings up to 3,000*l.*; 3½ per cent. from 3,000*l.* to 6,000*l.*; and 4 per cent. on 6,000*l.* and over, but the freehold owner of the ground does not receive any share of these proceeds.

Section II.

Under Act No. 13 of 1910 (Transvaal), the Trading Board created in 1908 was abolished. Trading stands which then existed were registered in the name of the Mining Commissioner of the mining district concerned instead of in the Board's name.

Section 82–87 of the 1908 Gold Law were repealed to the extent that the Board was abolished and its functions transferred to the Mining Commissioners and a new method of allotment prescribed.

No person is now entitled to trade on, or have an interest in, more than one trading stand or site, and the Mining Commissioner is empowered to cancel certificates when of the opinion that too many stands exist in any particular neighbourhood.

Where the Minister of Mines is of opinion that further trading stands are desirable in any mining district, the Mining Commissioner is empowered to choose further sites on mining ground (not required for mining or purposes incidental thereto) each in extent 100 feet square, and not less than 600 feet from the entrance of any mining compound. The right to trade on these sites is then available for sale by public auction by the Mining Commissioner, the purchase price being an *annual* sum, from the first of which payments the Government deducts the costs of the sale. The only instance connected with companies of this group is the Modderfontein B Gold Mines, Limited, on whose property a stand was set aside and the right to trade thereon sold by auction in 1912 for an annual rental of 2,005*l.* The lessee, however, could not continue to pay this high rent, so his licence was cancelled, and the stand was resold by public auction by the Government at a rental of 110*l.* per annum for a period of 10 years from the date of sale.

The freehold owner of the ground is entitled to half of the ground rent, which varies, according to the size of the stand, from 11*s.* 3*d.* to 21*s.* per month, but does not participate in any other sums received by the Government.

When a trading stand or site, after having been selected, is required for mining or purposes incidental thereto, the Mining Commissioner is authorised to set aside another site on ground not so required.

In all other respects the Mining Commissioner has practically the same powers as were delegated to the Trading Board under the 1908 Ordinance.

The Schedule attached marked "A"* gives a list of the trading stands set aside by the Government under the 1908 Gold Law on the companies of the Central Mining and Rand Mines Group, together with stand licences and the rentals payable by the holders of the certificates in respect thereof to the Government during the current year, and also shows the rentals paid previously.

In addition, particulars* of the aforementioned stand on the Modderfontein B Gold Mines, Limited, sold by public auction under Act 13 of 1910, are also given.

From Section 85 (2) of Act 35, 1908, it will be seen that sites created as trading stands had to be registered in the name of the Board (amended subsequently by Law 13, 1910, to the Mining Commissioner of the district concerned). The dominium does not pass from this official.

The individual's right to trade is constituted by a lease, terminable on a fixed date, but shall continue during the period that the lessee holds a certificate to trade.

Transfer of certificate cannot take place without the sanction of the Mining Commissioner.

At the termination of the lease the stand let and all buildings thereon revert to the Crown, the only compensation payable being prescribed in Section 90, sub-section (*d*) of Act 35, 1908, which is as follows:—

"That the holder shall take over from any previous holder any buildings erected on the trading stand on such terms as the Board may prescribe."

As the duration of the lease is definite and as the basis of compensation to be paid when the lease terminates is fixed, it does not appear that any vested right has been created, but the Mining Commissioner of Johannesburg will be able probably to give definite information on this point.

In the instance of sites sold by auction the duration of the right to trade is fixed in the conditions of sale.

In the case of the Modderfontein B Gold Mines, Limited, and, we understand, some sites on neighbouring properties, the period has been fixed at 10 years.

A further Schedule is attached marked "B"* showing the mining stands registered in the names of certain of our companies. These were created prior to the 1898 Gold Law, and the Schedule shows *inter alia* the rentals at which they are leased for trading purposes.

* Not reprinted.

APPENDIX XII.

LETTER FROM MR. G. NATHAN, OF JOHANNESBURG, SUPPLEMENTING HIS ORAL EVIDENCE ON THE SUBJECT OF AN AMALGAMATION OF THE GOLD MINES OF THE WITWATERSRAND.

(*See Question* 2619, *p.* 102.)

P.O. Box 1242,
Johannesburg, South Africa,
16th April, 1914.

GENTLEMEN,

IN supplementing my statement to your Commission of the 6th inst. (permission to do which you kindly granted me), I may perhaps be allowed to refer to the evidence given before you on the subject of competition for native labour. In this connection it was submitted to you that, in consequence of the formation of the Native Recruiting Corporation, competition for natives had ceased, and, since there was no reason to assume that under proper management the Native Recruiting Corporation should not continue indefinitely, it was not likely that a state of competition would again come into existence. This is a view which I cannot share. It is quite true that, for the time being, recruiting fees have been limited, but this does not eliminate competition to secure the services of the natives, which, I maintain, still prevails all over the Rand. Owing to the fact that the Robinson Group, with an official complement of over 30,000 natives, is not a member of the Native Recruiting Corporation, and is therefore at liberty to compete (as it does) with that Corporation, the ring is not even complete so far as the different mining groups constituting the Native Recruiting Corporation are concerned. This, however, is not such a serious objection as is the fact that the Native Recruiting Corporation is not in a position to send natives to any mine which at the moment may be most in need of them. The native is free to select the particular property to which he shall be allotted, and, in order to influence his choice in this connection, most of the companies vie with one another to secure his favour by granting him what they think are smaller or larger advantages while he is working for them. These mainly consist of such privileges as the right to "loaf" at certain times during the week, extra rations of meat, the opportunity of selecting the task to be performed, gratuities paid which do not appear in the native pay rolls, and so on; which all—without considering the waste of money involved—lead to laxity and ineffi-

ciency. In this regard I may state that the system of piecework for shovelling and tramming, introduced about a year ago, shows no proper relation between rates of pay and task when compared with day's pay, and it may, therefore, be said to have been inaugurated simply to popularise certain mines in the eyes of the native worker. Consequently, I maintain that internal competition still exists, to the detriment of the industry, and that this element cannot be done away with so long as there are individual mines and individual groups. Moreover, the permanency of the Native Recruiting Corporation is by no means assured. As a matter of fact, even now there seems to be an inclination on the part of one of the groups to break away from it, and although this may not happen at the moment, the danger is always with us that one day the Corporation will be disrupted, and that full competition, with all its drawbacks, will recommence on these fields.

It has also been stated in evidence before you that all the advantages to be gained by a general amalgamation are equally attainable without. This is much easier said than proved, inasmuch as the defects of the present single-company individual-group control must be apparent to everybody concerned with the administration of the mines. Nevertheless, an improvement has not been effected, and it seem to me too much to assume that now, all of a sudden, a betterment can be brought about under prevailing conditions. It has been due to the many different heads and to the lack of *esprit de corps* that the administration of the industry in the past has not been what it ought to be, and I submit that so long as the many heads continue the same lack of *esprit de corps* will persist, and no improvement will be manifested in this respect. To illustrate how extremely difficult it is under the present system of control to arrive at any common policy, I may mention that, after it had been found that the wages paid to natives employed on machine drilling were not sufficiently attractive as compared with the hand drilling or hammer work rates, the matter of making the necessary adjustment of the rates was under discussion from November, 1912, until February, 1914, and it was not until the latter month that new rates of pay were agreed upon by the employers. Thus, a matter which could, and should, have been decided within a comparatively short time took fifteen months to settle, and during this period the industry had to suffer all the disadvantages arising from the disinclination of the natives to undertake machine work at the prevailing rates.

I hardly think it is necessary for me to further deal with the shortcomings of the existing system of administration, and I will, therefore, now proceed to show what, in my opinion, a general amalgamation would mean in figures. I must, of course, assume that the capital necessary to lay out the workings of the Witwatersrand on a basis which would conduce to the attainment of the greatest economy would be forthcoming, and I think that the following savings would then become possible:—

(1) Development could be reduced to below half of what is done to-day, and a proportionate reduction in working costs would result. This I will put down at the low figure of 6*d*. per ton milled.
(2) The supporting of the hanging-wall, which is at present done by rock-walling and timbering, could be effected by a proper system of sand-filling which, at the same time, by enabling a better control of the air currents, would greatly improve the ventilation of the workings, and bring about a saving of, say, 6*d*. per ton.
(3) Tramming and shovelling, 6*d*. per ton milled.
(4) Pumping, 4½*d*. per ton.
(5) Winding and shaft maintenance. It is extremely difficult to say what is now actually spent on these items, but the outlay is certainly considerable, and it is not too much to assume that under this heading a further 3*d*. per ton crushed would be saved
(6) Surface transport, 1½*d*. per ton.
(7) Reduction costs, 1*s*. per ton.
(8) Workshops, 4½*d*. per ton.
(9) General expenses. I will put the saving under this head at the low figure of 3*d*. per ton.
(10) Head office, 1½*d*. per ton.

Adding these together, we arrive at a total saving of 4*s*. per ton milled as the result of concentration only. To this has to be added the equivalent for the largely increased efficiency of the individual worker which undoubtedly would be brought about, and which I do not think I over-estimate at a further 2*s*. per ton, so that a reduction in the working costs by 6*s*. per ton milled could be expected, without taking into account the considerable amount which would be saved in consequence of the abolition of the recruiting of native labour. On the rock crushed during 1913, viz., 25,600,000 tons, this 6*s*. per ton alone would represent a saving of over 7,500,000*l*.; in other words, the amount of profit available for distribution would have been almost doubled. Apart from this feature, however, the working costs would be so reduced (in 1913 they were 17*s*. 11*d*. per ton, which, less 6*s*., leaves 11*s*. 11*d*.) that practically every ton of ore on the Main Reef series could be mined, with the natural consequence that the duration of the period of mining on these fields would be indefinitely prolonged, and the enormous expansion of which I spoke in my statement of the 6th inst. would be consummated, to the great benefit of the community of South Africa.

I must especially point out, however, that to bring about the alteration in the system of working required to effect the above-mentioned economies would take several years from the date of amalgamation, and that the benefits could not, therefore, be expected to follow immediately. On the other hand, it is hardly necessary to again draw attention to the immense waste that must persist if amalgamation be further delayed —this being clearly demonstrated by the foregoing figures. It must also be borne in mind that the continuation of the present system makes the inauguration of a common policy for working the Witwatersrand as a whole more difficult of accomplishment with the passing of each year.

I have, &c.,
G. NATHAN.

The Chairman and Members of the
Dominions Royal Commission,
London, England.

APPENDIX XIII.

CORRESPONDENCE AS TO THE PROPORTION OF THE REVENUE OF THE UNION WHICH IS DERIVED FROM THE MINING INDUSTRIES OF SOUTH AFRICA

(*See* pp. 7 and 45.)

1. *Letter from Mr. J. R. Leisk, Secretary for Finance.*

Union of South Africa,
The Treasury, Cape Town,
SIR, 9th April, 1914.

I HAVE the honour to advert to our discussion this morning on the subject of the proportion of the Union's revenue which may fairly be said to be attributable to the various mining industries of the country.

In terms of a request preferred by you, I asked the various revenue-earning departments to frame returns, to the best of their abilities, of the revenues administered by them which, indirectly as well as directly, might reasonably be deemed to accrue from mining gold, diamonds, coal, and other minerals within the Union. A summary* of these returns is in your possession, from which you will have perceived that 45 per cent. of the Union's revenues are attributed to mining and 55 per cent. to other sources.

It will, of course, be manifest to you that the preparation of estimates of this nature is a most difficult matter and that the figures are necessarily very arbitrary. For this reason, the summary now before you requires to be examined with the greatest care before any reliable conclusions can be drawn therefrom.

I am satisfied in my own mind, although I am unable to prove my conviction, that the figures given in the summary are considerably below the mark as regards the proportion of our revenues attributable to mining. If it were assumed, for the sake of argument, that mining operations were altogether suspended throughout the Union, then there can be no doubt whatever, in my opinion, that the sources

See next page.

other than mining could not contribute 15,000,000*l.* by way of revenue to the State. All the other industries of the Union, not excluding agriculture, are so intimately concerned in the welfare and prosperity of the mines that their powers of contributing to the national exchequer would be sadly impaired by the disappearance of this mainstay. This is a factor to which the revenue officers, in preparing their estimates, could not be expected to give full credit, but it is nevertheless one that, for your purposes, cannot be ignored.

My deliberate opinion, arrived at after looking at the matter from all points of view, is that it would not by any means be an exaggeration to regard 60 per cent. of the Union's revenues as being directly and indirectly attributable to our mining industries, leaving only 40 per cent. as the yield from other sources.

I have, &c.,
JAMES R. LEISK,
Secretary for Finance.

Sir EDGAR VINCENT, K.C.M.G.,
Dominions Royal Commission,
Cape Town.

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2. *Summary estimate referred to in Mr. Leisk's letter.*

ESTIMATE OF REVENUE OF UNION IN 1913-4 DIRECTLY TRACEABLE TO MINES AND MINING POPULATION (INCLUDING GOLD, DIAMONDS, AND COAL).

(The Estimates omit consequential revenue, poll tax on natives, &c., and taxes paid by whites outside the mining centres, who profit by the mining industry, *e.g.*, merchant firms at the coast).

	In Thousand £		
	Mines.	Other Sources.	Total.
Customs and Excise	1,900	3,400	5,300
Posts, Telegraphs, &c.	463	1,217	1,680
Inland Revenue :—			
Mining Taxes and Royalties ..	2,380	—	2,380
Stamps and Licences	380	680	1,060
Estate and Transfer Duty ..	280	190	470
Pass Fees	350	60	410
Native Taxes	—	790	790
Land Revenue, Rents, &c. ..	—	340	340
Miscellaneous	200	820	1,020
	5,953	7,497	13,450
Railways and Subsidiary Services ..	6,320	6,920	13,240
Harbours	250	760	1,010
	12,523	15,177	27,700

Say 45 per cent. from mines, 55 per cent. from other sources.

3. *Extract from letter from the Transvaal Chamber of Mines.*

Johannesburg,
9th April, 1914.

SIR,

* * * * * *

PROPORTION OF REVENUE OF UNION DERIVED FROM MINING INDUSTRY.

I have considered the estimate* of the revenue of the Union directly traceable to mines and mining population handed to me by the Chairman, and would make the following remarks:—

(*a*) *Customs and Excise.* The division of this revenue between mines and other sources has, I understand, been made on a population basis. I would point out that such a basis must considerably under-estimate the mines' share, as the average spending power of the mining community per head is, without doubt, considerably higher than the corresponding spending power of the remainder of the population.

(*b*) *Native Taxes.* It appears to me that a portion of the native taxes may legitimately be credited to the mines.

(*c*) As stated in the estimate, consequential revenue, and revenue derived from that portion of the white population, which, although not classified under "mining population," yet lives largely through profits derived from the mining industry, have not been credited in any way to the industry. Such revenue must amount to a considerable sum.

Generally, therefore, it appears to me that the estimate considerably under-estimates the share of the revenue of the Union which is ultimately borne by the mines.

I have, &c.,
W. GEMMILL,
Acting Secretary.

THE SECRETARY,
Dominions Royal Commission,
New Law Courts,
Johannesburg.

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* *See* (2) above.

APPENDIX XIV.

MEMORANDUM BY MR. W. LORIMER ON A VISIT TO THE WORKS OF THE ALLUVIAL TIN FIELDS OF AFRICA ON MARCH 10TH, 1914.

Tin is a metal which has not yet been largely produced in South Africa. Much the largest quantity has hitherto been found in the Transvaal, but here and there mines are being worked in the Cape Province which give promise of increased production. The works of this company are situated about 15 miles from Cape Town in a very extensive area of a similar geological character, but although numerous bores have from time to time been made not much success has resulted. The Alluvial Company's mine has, however, a good promise, and yields 4 to 5 lbs. of black oxide for each cubic yard handled. The deposit is a gravelly clay, and the embankment on which operations are at present carried on is worked by pick and shovel with occasional blasting to provide material enough to keep the operations running night and day. The process employed is of a simple description. The material dislodged is sluiced to a water box, where the gravel, clay, &c., are removed and thrown aside as worthless. The remainder is again sluiced to another water box and kept in constant motion by hand until all the valueless material is washed away, leaving only the tin concentrates. These contain 76 per cent. of pure tin, are put into bags containing 100 lbs. each, and shipped in this form to Swansea. The present output is about 10 tons of concentrates per month, but it is expected that at an early date this will be increased to from 20 to 25 tons. The quality of the metal is excellent, and it is freely bought. The Company's property measures about 1,050 acres, of which as yet only about 32 acres have been proved, so that if the remainder of the property turns out as well, the prospects of a large yield for a long time to come are very encouraging. The Company have been in possession for only twelve months, and they followed several owners who from one cause or another failed to make the mine a success. The place is, however, now under very efficient management, and the energy and experience of Mr. Gay Roberts, the Manager, seem likely to prove very satisfactory to the Company, who believe that after this preliminary experience the mine will prove a dividend-paying investment. There are about half-a-dozen Europeans employed and between 20 and 30 coloured workmen. With the increased production contemplated, this will, of course, be considerably increased. The works are only four miles from a railway station, so that the cost of the delivery of the concentrates at Capetown is insignificant.

APPENDIX XV.

Memorandum by Mr. W. Lorimer of a Conversation at Port Elizabeth on March 13th, 1914, with Mr. Carl Friedrich Wolff, of Messrs. Adolph Mosenthal & Co.

Mr. Wolff's firm are merchants in Port Elizabeth and other South African towns, but Mr. Wolff himself in his early years lived in the Styrian district of Austria, and gained some knowledge of the iron mining and manufacture carried on there. Some time ago while visiting the Kenhardt district for the purpose of investigating agricultural resources, he quite accidentally noticed a kopje which contained an outcrop of iron ore. The kopje in which he found this ore is only one of an enormous number stretching eastward for about 100 miles and terminating at Postmasburg, where ore is known to exist. The samples which he took away from the former district he had analysed by Mr. Crosse, of Johannesburg. The analysis which he submitted showed the ore to be of singularly fine quality. The percentages of phosphorus and sulphur are practically negligible, while there is no titanium whatever in the ore. There are known to be large fields of iron ore in the neighbourhood of Pretoria, but this contains so large a percentage of titanium that it would render smelting by blast furnace extremely difficult and costly. Did the whole range of kopjes extending for 100 miles contain ore of a character similar to that of Mr. Wolff's sample, which he is inclined to believe, it would be difficult to exaggerate the value of the deposit. It is, of course, obvious that one cannot possibly found much on a single analysis over so extensive an area, and I propose to make further enquiries of the Government geological and mining authorities. Assuming that there really is a deposit of anything like the magnitude believed by Mr. Wolff, it is, of course, certain that the ore could not be utilised in South Africa as ore for many generations, and in order to utilise it it would require to be shipped to England or elsewhere. Before even this could be contemplated it would be necessary for the Government to build a railway into the field, the present railroad being about 125 miles away. It would then remain to be ascertained if the ore could be carried to the nearest shipping port and thence by sea to England at rates which would enable the deposit to be profitably worked.

One grave difficulty in the way of smelting the ore where it is found is that the nearest coal is 350 miles away.

With respect to coal, indications of its existence have been found in the neighbourhood of Port Elizabeth, but such trial borings as have been made have proved disappointing. Anthracite was found, but it was only an outcrop. The records of the bores in this case are, however, imperfect, and Mr. Wolff wished to reinvestigate, but the owner of the farm asked £50,000 for what, as agricultural land, is worth not more than £5,000 to £8,000. At another point a man looking for water found what appeared to be coal at 30 feet depth. Mr. Wolff thought it was only shale, but the analyst reported that it was an inferior coal. A geologist said that the occurrence being near the surface it was likely that coal would be found deeper, and Mr. Wolff is now seeking prospecting rights. Geologists say that the Karroo is a formation favourable to coal, and it is possible, therefore, that this may yet be found in great abundance.

Iron ore occurs in Rhodesia. This ore, so far as yet worked, contains a considerable percentage of chrome, and there are regular exports at about 45*s.* per ton.

P.S.—I ascertained at Johannesburg that the existence of the deposit of iron ore to which Mr. Wolff called my attention has only quite recently become known to the Government. It has not yet been carefully examined, and in point of fact very little is known about it.

APPENDIX XVI.

Note by Mr. W. Lorimer on a Visit to the South African School of Mines and Technology at Johannesburg, on April 2, 1914.

The South African School of Mines and Technology at Johannesburg—a development of an earlier and less important institution—deserves note because of the excellence of its equipment and the high standard of its teaching. This teaching is peculiarly fitted to provide suitable training for those who have to carry on the great mining industry of the Rand. The teaching is of university standard, and there are Professors (with Assistants and Lecturers) of Mathematics — pure and applied — Chemistry, Physics, Geology and Mineralogy, Mechanical Engineering, Civil Engineering, Electrotechnics, Mining and Surveying, and Metallurgy and Assaying, besides a Lectureship on Law.

The Government and the great mining companies have given liberal assistance, and the latter have also provided numerous scholarships, and find employment for the young men who take the diploma of the school.

The buildings occupy an excellent site, with ample room for future expansion.

The school has no power to grant degrees, but the students can offer themselves for examination by the Cape University and so obtain the science degree of that well-known institution.

APPENDIX XVII.

Note by Mr. W. Lorimer of a Visit to Vereeniging on April 7th, 1914.

A desire, which has long been widely felt, to have some of the iron and steel requirements of South Africa made in the Union, led the Government some time ago to enter into a contract with a syndicate to supply all the scrap iron and steel made on the railways at a very low price, on condition that this was converted into steel suitable for the general purposes of the railways and of other consumers. In pursuance of this purpose the Syndicate, represented, I understand, by Messrs. Lewis and Marks, have erected on a site at Vereeniging, and immediately contiguous to Messrs. Lewis and Marks's collieries, a Siemen's open-hearth furnace, in which the wrought iron and steel and scrap, with an admixture of pig-iron and cast-iron scrap, is reduced. No ore is used in the process but scale is used for the purpose of decarbonising. The product is occasionally high carbon steel, as may be arranged, used for the purpose of making light rails and tube mill pegs, but, generally, a mild steel is made for angles and bars. It is, of course, not possible here to roll direct from the ingot and there is one re-heating furnace, and also a furnace for a 600-ton press, which dispenses with the use of hammers. The rates of wages paid to white men vary from 18*l.* to 48*l.* per month; first-hand smelters getting 30*l.* per month and first-hand millmen 45*l.* per month; while the coloured men get from 1*s.* 6*d.* to 2*s.* 6*d.* a day and food. Under recent management it has been found possible to use coal costing only 6*s.* a ton. Formerly, the coal used in

the gas producers cost 27*s.* 6*d.* a ton. The prices received are 9*l.* to 11*l.* per ton for mild steel bars and angles, and up to 16*l.* per ton for high carbon steel. The arrangements are good and the work satisfactory within existing limits, but the manufacture is on too limited a scale to make it at all profitable without the high prices received for sales and the very low price paid for scrap iron. There is here, no doubt, the potentiality of a large and prosperous industry, which, however, can never be thoroughly developed until it is possible to use native ores converted into pig iron.

In the immediate neighbourhood of these works the Victoria Falls and Transvaal Power Company have one of their four stations erected to supply the Rand mines with electric power. Of the other three stations, two are smaller and one is larger. The latter, the Rosherville Dam, six miles from Johannesburg, has a product equal to 100,000 h.p. The station, which was seen, is most admirably equipped, and the whole of the arrangements are of the most modern and perfect description, and, I should imagine, must be in all respects satisfactory to consumers. The name is perhaps misleading to strangers, as the situation of these different plants is more than 1,000 miles from Victoria Falls. The whole of the electricity produced is developed by steam power.

APPENDIX XVIII.

Johannesburg, Saturday, 4th April, 1914.

EVIDENCE GIVEN BEFORE A COMMITTEE OF THE COMMISSION CONSISTING OF MR. J. TATLOW AND MR. J. R. SINCLAIR.

Mr. C. F. STALLARD, K.C., examined.

(*Witness.*) I was at breakfast the other morning with Sir Edgar Vincent, and, talking over things in general, I put forward my views shortly on the necessity of separating the white and black races in South Africa. He appeared to be interested, and wondered whether this would meet the views of the native races. I informed him that I could bring some natives before the Commission, and from that has arisen my presence here this morning.

1. **(Mr. Tatlow.)** Very shortly, what is the present relation at the present time?—It differs in the different Provinces, but it is a survival of the position in which the white races overcame and conquered the blacks. At the present time the white races use and exploit the natives for their own ends, and I do not think I can do better than refer you to the old Squatters' Law of the Transvaal, Law 21 of 1895.

The Boer policy towards the natives was to divide them up amongst the farmers, allowing each to retain sufficient to do his work. It was a policy deliberately planned to take the native away from his own surroundings and from their tribal organisation. Thereafter came the great industrial development arising out of the discovery of gold and diamonds, when black labour was urgently required, and you may have heard that there is now a highly organised system of recruiting blacks for work on the mines, and that the four corners of the sub-continent are being scoured, even outside the Union, for the purpose of bringing in blacks to do the work, whilst whites are unemployed and becoming unemployable. It is wholly an abnormal and unsatisfactory condition.

In the Report of the Economic Commission, lately presided over by Professor Chapman, it was remarked that between the skilled white and the black there is a sudden drop; in other countries there are various grades, but there is no gradation in this country; you have a skilled employee directing the natives and then you have nothing until you come down to the native himself. The result of this has been seen in many directions. I have seen it myself as a member of the Witwatersrand School Board. A very large proportion of the boys who leave drift into blind-alley occupations—lift-boys, messengers, street-sellers, and all sorts of odd jobs—because there are so few openings, compared with other countries, to absorb them. Many of these lads receive a fifth-standard education, leave school, and have no option but to take up their blind-alley occupation.

I am speaking, sir, of Johannesburg, but the same conditions apply in other districts throughout the whole country. We have tried, and tried vainly, to remedy this state of affairs, but the work which is done in other countries by young lads, especially in assisting their fathers in their trades, under our artificial system is done by natives.

What has been the result? We have a less skilled white population than we should have; we have also got a large criminal population.

In support of the first point I may refer to the report of Mr. Ross Brown, who was brought here some years ago from America, I think, by the house of Eckstein (or one of the other big houses) to report on the mining question. In his report* Mr. Ross Brown stated that the average efficiency of labour here was only about one-quarter when compared with the mines of California. This applies to the whole labour unit, which includes both black and white.

In mining here, the white man, under our abnormal conditions, is principally occupied as an overseer, whilst rough manual labour is mainly done by the black. The effect of the presence of the black man on the mechanic or tradesman also is to decrease his efficiency, because he is not so continually exercising the tools of his trade. This re-acts upon the position of the children, and it is difficult, almost impossible, to apprentice a boy to a trade here. The employer wants to make the most of his skilled white man's time and is not inclined to allow him a considerable amount of time which is necessary to teach white lads their trade. I could elaborate on this to a great extent, but I have indicated the nature of the evil.

The white unemployed have a difficult task to make ends meet; and the less scrupulous turn to crime, particularly to the crime of selling of liquor to natives, and also to illicit gold and diamond buying, which is facilitated by the presence of natives. We are making criminals of our poor whites on a wholesale scale, and the appalling figures have been commented upon by judges, ministers, and citizens.

The expense of all this, the wastage of educated youths, the wastage in the lives of men, the wastage in the administration of justice, the time of the judges, magistrates, the lawyers, the police, the detective force, the jails, and the jailers, the whole of this is caused by the artificial system under which we exist. To the cost of so-called "cheap" black labour all this additional expense, all this loss to the country, must be charged.

2. Of course, Mr. Stallard, in all countries there is a measure of this wastage where there is no question of black labour?—I am quite aware of that, but it is increasing to an alarming extent in this country, as statistics will show. Liquor-selling is the chief and the most degrading.

3. Is the record of such crimes kept distinct in the case of white and black?—Yes; you will be able to get statistics on that. They have had the most severe punishment for the first offence for selling a single glass of liquor. First offenders have received six months with hard labour, without the option of a fine, and it has had no effect. The low white will always pander to the black, who is not able to resist. My point leads up to this. Contact between white and black has wrought evil to both races. I have been putting the matter from a white point of view, and you will hear from the lips of natives qualified to speak from the point of view of their people.

* "Working Costs of the Mines of the Witwatersrand." Paper read at the General Meeting of the South African Association of Engineers, June, 1907.

Some natives, who have come here from their kraals, have taken to crime as a profession. It has been estimated by the police that there are something like 2,000 such native criminals in the Witwatersrand area —a floating black population organised often into secret societies, with their own captains, judges, officers, and so on. An account of such a society you will find in the record* I have handed in. I blame the whites for it. We are taking the native from his own life, from his own social system, and forcing him into twentieth-century competitive conditions, and he is unable to hold his own.

Unlawful intimacy between black and white is also increasing. It is illegal for a white woman to have connection with a black man, but there is no corresponding law making it illegal for the white man to have connection with the black woman. The "black peril" is realised here; is a very grave one, and the corollary to that is the "white peril" to the native. Natives resent this every bit as keenly, I believe, as we whites resent the interference of the black with white women. It is a very grave peril, indeed, from both points of view; bitterly resented by both; and it has led to the creation of a coloured race rejected by both, and by both disliked. You have got to remember the proportions of the races in South Africa. There are, roughly, four-and-a-half millions of blacks to, roughly, one-and-a-quarter millions of whites in the Union. I need not elaborate on that.

Now, the question is, what ought to be done to prevent this? To my mind you cannot, by force of laws or by penalties, prevent the evils with which I have dealt. The only way is to make it physically impossible that there can be this contact, and the only way you can do this is by segregation. I do not mean segregation based upon territory only, or the segregation which makes all the skilled work done by the whites and the unskilled by the blacks. This is absolutely unjust, and it would fail in meeting the object we have in view. Give to the natives territorial segregation, not merely locations, but give them territory of considerable size, where they will be able to lead their own life under their own social conditions, and according to their own ideas. The native of South Africa is essentially a socialist. We are more individualistic. Their system has been broken down owing to natives being recruited and brought here to work on the mines. I believe if we were to set apart territories fairly chosen with regard to locality, and say that in these territories they can lead their own lives in their own way, that would be attractive to the native. I repudiate force altogether, and I am speaking as a man with experience. It should be an appeal to their better nature, and in accordance with their legitimate desires. Why should they not get away from interference with their habits and free from restrictions? Why should they not have kaffir beer? They are accustomed to it. Why are they always bound to live apart in certain areas chosen for them, and not allowed to move freely within their own territories. If you do that, you will see here a development akin to the development of Australia, New Zealand, and Canada. It will be infinitely better for the white and for the black. Both will be developed to the utmost of their powers and along the same lines, not being forced or pushed, and the native will not be made to specialise on hammer drills, but he will be allowed to choose his own mode of life and develop himself along his own lines. You cannot separate white from black in a day or a year, but forbid recruiting outside the Union. That will cause a shortage of black labour; wages will rise, and the shortage of blacks will be filled by whites. According to Mr. Ross Brown, the average unit of efficiency on the Rand in mining was only one-quarter of that in California. It would pay the mines very much better to employ more skilled labour at a higher rate of wage.

4. **(Mr. Sinclair.)** You do not propose that compulsion should be imposed upon the native?—No. My plan is attraction.

5. What will be the native view of the scheme that you put forward?—You will hear from two natives this morning, who are in a position to inform you on this important matter. Amongst the chiefs and amongst the men you will find that the majority are in support of my scheme. One of the results of the young men going out to work is the loss of tribal authority. The young men revile, the girls scorn, and the chiefs lose the authority they once had over them. I think this will be backed up by the opinion of a large number of themselves. Most of the natives I have had to deal with (and I have had considerable experience of them) do not like being amongst the whites. They would prefer to lead their own life. The wages they get they find do not go very far, they are squandered in the fines imposed on them and then there is the trouble with the Pass Law, which acts as a big tax upon their earnings. I have sat as a magistrate in the country areas, and the Pass Law is a big tax on the natives. The country is divided into labour districts and non-labour districts. Those districts which are labour include the Witwatersrand. A native has to carry a pass which has to be renewed every month, and the fee of 2*s.* has to be paid by his employers. He must always carry this pass in that particular district in which he is engaged. If he wishes to travel outside of that area he must get special authority. Then, if he lives in a compound, it is just the same. He has got to have a pass outside the compound. On the farms outside a labour district a native is not allowed to travel outside the farm unless he is carrying a pass signed by his master, and he can only go a short distance with that. If he wishes to travel outside the district, he has to go to the nearest Pass Office and get a special pass to go elsewhere. If he travels without a pass he is liable to be arrested by any policeman, native or white, without warrant, lodged in gaol, brought up at the first Court day, taken before the magistrate, and fined from 5*s.* to 1*l.*

6. Does this apply to domestic servants in Johannesburg?—Yes. There is a monthly pass in labour districts. The master pays the stamp, but the fines are payable by the native himself. The revenue goes to the Union Government. The fine is imposed because he transgresses the law under which he holds it. I think that this is an important factor in making the native in favour of segregation in order to get away from the vexatious conditions that are created by the Pass Law.

Under the scheme which I propose, I would make everything permissible for a time. I would set aside land for the natives. A great grievance with the native is that the Act recently passed by the Union Government prevents their holding land. You will hear what their feelings are on this matter.

7. What revenues have the chiefs?—They have their tribal lands. The natives may be divided into two classes—those who have chiefs and those that have not. A number of them are not attached to any chief.

8. How has that come about?—Through the operation of the Squatter's Law, whereby the Government divided families among the farmers. These families lived on the farm and increased, and there you are.

9. And if lands were set apart and a start was made with segregation?—A great number of them would have no chiefs.

10. Under your scheme, would you impose penalties in order to compel them to live in their territory?—I would go to this extent. I would discourage blacks in the white area. The present colour bar is no restriction. I think it is unjust, and I could not attempt to justify it.

11. If a large number still prefer to work under the present conditions, or improved conditions, could the system be maintained? Would it not break down?—I think that under the scheme proposed by me you would find that the bulk would go and live on their own reserves. A minority would be left, but they would not have the same scope. It would cease to pay employers to lay out their schemes on a black basis. It would not pay them. It necessitates particular organisation of special buildings, &c. The whole thing would cease to be profitable to the big employer, and he would have to lay out his scheme of operations on a white basis. The minority would find that their opportunities were dwindling, and they would increasingly migrate into the black area.

12. Without expressing an opinion as to whether it would be desirable, I think it would have the effect, would it not, of restricting some of the mining industries that are now carried on?—I would prefer, sir, that that be answered by one more qualified than myself to speak about mining conditions.

13. It is common knowledge, is it not, that there are some mining industries that could not be carried on with more expensive labour?—For my own part, I

* Not printed.

would gladly put up with any temporary dislocation, because it seems to me that the issue before the State is of such tremendous importance.

14. Would not one effect of segregation be the same evils of which you complain? Would not it be to arrest that development of the native which must take place by the discipline of work, and by improved conditions, which must obtain as time goes on?—In my system I do not suggest the doing away with teachers, schoolmasters, instructors, and so on. I rather leave the native to work out his own salvation in his own way. We have an example in Basutoland. There industries are initiated by the natives, and under my scheme they would develop industries that would fill the bill, so to speak, for their future.

15. Do not you think that with improved conditions and education, with the discipline of work, there is a wider field for the native as things are at present?—I do not, sir. There is too much temptation to the native, caused by the close contact with the white, and this tends to degrade the average native. When you are dealing with the two races the one naturally starts from a different point and tends to prey on the other. If you are dealing with the best of both races, the evils are very slight, but we are dealing with masses of people who are unrestrained by any scruples, and under the present system I maintain that conditions will not improve.

16. At the commencement of the association of two peoples there must be evils; they are inevitable; but do you suggest that contact with our people is so deadly that the native cannot survive, that he must go down, and that he will be utterly degraded unless he is cut off from the people of our race? And that that condition can never be altered?—I do not think so, sir, except by separation.

17. It is a severe judgment on our race.—I am afraid it is a true one.

18. Do not you think if areas of land were set apart for the use of natives, and they were in that way given the support of some assistance by outside work that they could do, that they would become more and more independent, and in that way be less liable to the abuses under the existing conditions, and that they would gradually develop and strengthen and get better fibre?—I that it that your question is whether it would not be better to allow them to go out among the whites?

19. Do not segregate them entirely; leave them the opportunities that they have to-day; they would then have the advantages of some independence from their land, and they would have the advantages of work. I would suggest that the combined effect would be to strengthen them and to enable them to stand up for themselves better than you seem to think them capable of?—That is no doubt the way we would begin, and after the system had been in force for some years we might have to modify our views with increased knowledge. My own opinion is that the process of segregation would have to be carried out to the conclusion.

20. You would allow the system to be permissible for a period to see how it works?—I do not like compulsion methods, but I might have to use compulsion if there were a small minority left. Some whites would need compulsion, the traders more particularly in the native areas. Compulsion would require to be applied to them.

21. Suppose that the attraction of wages drew large numbers still to the mines?—It would be a shock to me, because it would prove that my conclusions were wrong, and I would have to go all over my calculations again. Even if I were wrong I would still try some other way. I am strongly of opinion that unless we have territorial segregation the tendency will be for South Africa to become, in an increasing degree, a black and coloured man's country.

Mr. R. W. Msimang examined.

22. **(Mr. Sinclair.)** You have heard Mr. Stallard's evidence?—Yes.

22A. How would you deal with the question of segregation? Would you favour us with your view or the views your people hold on that subject shortly and generally?—First of all I may say that there is some difference of opinion in regard to the question of segregation amongst us natives, but the opinion, so far as I have been able to gather, is only as regards the form of segregation. The natives are agreeable to the principle of segregation as such, subject to this: that they do not like that it should be forced upon them without their opinion being taken on the matter.

23. Absolute segregation is not suggested, but rather territorial segregation—the black living on the one side and the white on the other?—That form is, I believe, entirely opposed by a good many of us. We do not believe that it could be to our advantage, in fact we look upon it as a policy of extermination. Those of us who have had the privilege of having a certain amount of education think that a policy such as that would put an end to us. It would force us back again to the earlier condition of things, and we would like to see our people advancing along their own lines up towards a higher stage of civilisation. We have had a great deal of contact with civilised people, and nothing in the shape of territorial segregation would be to our advantage. In fact, I think it would be an absolute failure from both the white and black point of view. It would be found by both sides that they require each other. Shortly stated, that is the general opinion on the question of absolute segregation.

24. I leave that, and go to the question of partial segregation?—I believe that the majority of us are in favour of partial segregation. That is to allot certain areas throughout the Union and say to the whites—You live there, and to the blacks, You live there. Of course, you must allow for expansion of the native population under any scheme, and the native would not be prohibited altogether from going out of this area to labour. We have already native townships, we have native reserves, and locations. You have an example of that in the Transkeian Territory. This is practically a native reserve, but there are a good many European traders and others. In Natal there are mission places where only natives live, and you find that the natives seldom desire to leave these stations to live in towns. This policy has been carried out voluntarily, and any encroachments have been made, we maintain, by the white people, and if you carry out the policy of partial segregation it must be by improvements on these lines, so that we can have our own areas and have our own industries, initiate our own improvements and carry on as far as we are able. Of course, it must be remembered, we can only do this with the aid of outside sympathy and capital. We ourselves have no capital of our own. We are of opinion that on these lines, so long as it is not forced at the commencement of the policy, and not artificially pushed, the system of partial segregation would undoubtedly be for the benefit of our people. There would be more labour for our population and a gradual increase of capital. Then the next point on which we are agreeable to accept the policy of segregation is on the ground of miscegenation. We do not like it; we hate it. It is increasing, and can only be stopped by partial segregation. We find that it is to the ruin of our people, because they are exploited to a great extent. But we know that we want labour. Under the present conditions the native is practically forced to come to industrial centres for work because of the heavy taxes and many other things which they are called upon to pay. The question now arises as to how they can be attracted back to their reserves. We think that it would be fatal to the whole population to do away with black labour at the present moment, and we come back to the question that it would have to be a gradual process. It would have to be a process of evolution. Then there has been a great deal said that since we approve of the principle as a principle, why then do we not accept this Native Land Act, which is intended for the purpose of segregation? We do not agree with the Act. We do not think it fairly carries out the policy of segregation. It is absolutely one-sided, and the second point is that it does not sufficiently provide for our native population. To start with, of course, we are prevented from buying, selling, hiring or letting land. It does not interfere with existing rights or contracts. Land with us is held on the communal system, and in the past we have had to

buy land from Europeans, and land is our only capital.

The want of land hampers the improvement of the native because he relies upon the land for his subsistence, and for his gradual improvement. Under the new Act we cannot hire or lease land any more. Now, if a man has to leave a farm to go to another, he has to go there to labour. He pays nothing for the right to squat, but the white farmer gives him a piece of land, which is often not even sufficient for him to maintain his family decently well. He spends the greater part of his days working for the white farmer in return for that little. When he wants to go beyond the farm he must get the permission of the white farmer, and that permission can rarely be got at the time when he wants it. The result of this is that we find large numbers of our people wandering about the country living a life of vagabondage, and living under extreme distress. We do not like this new Act, and we are going to use all our efforts to get it repealed sooner or later. So far as the principle of segregation is concerned, that is partial segregation, whatever policy is carried out you must take into consideration the existing condition of things. The races at the present time cannot afford to part. We are doubtful whether the natives will be given under the new Act sufficient land so that they will be able to live decently and to advance forward as they are capable of doing. Segregation, complete segregation, is not a policy that can be forced or pushed; it must be gradual. I would like, sir, to pass on to one more point, that is regarding our position in Parliament, that is, the question of representation.

This question of race problem, from our point of view, depends upon two things. The first is representation, or giving the subject races the right of consulation. And the second is that there must be opportunities for improvement. You must grant equal opportunities; in other words an open market for labour and capital and energy. It would seem to us that the solution depends upon that. If we get these two things and we get the right to improve ourselves industrially and commercially, without any restrictions, we should soon be able to maintain ourselves and be an independent people. We are still dependent upon the whites. We require to come to them for money, and for labour, and for capital. We claim this right of representation on an important ground. The first one of representation speaks for itself. We believe that once a native has fully developed himself and has attained to a high standard in life he should be recognised as a full citizen and should be given the right of representation. There are a great many natives who have sufficiently worked themselves up.

Then there is the advocating of the right of consulation; that is to say, the right of the natives to a voice in their own affairs. Give them some channel to voice their affairs even if you cannot grant direct representation. We would be very glad to accept that, and we know that there are a great many Europeans advocating this, including the great missionary bodies. What has been suggested is an Advisory Board, Native Councils in the different Provinces, and we ourselves claim that we already have a Native Parliament in the South African National Congress, a political organisation which represents the various South African tribes. It is composed of two assemblies, the lower house with delegates from the various tribes, with the higher house. Of course, the chiefs have always the final voice, and the upper house has the right to veto the lower house.

We believe that had this Act not been forced upon us, that had we been consulted, we could perhaps have evolved a better law.

25. We gather from you that your people are not in favour of territorial segregation, but that the majority favour partial segregation, and that one of the principal reasons why you wish this is because of miscegenation. Do you think that partial segregation would minimise that evil?—It would minimise it to this extent that there would not be so many women in the white areas as there are at present.

26. You would have in one direction a clear field to breed a pure race. You think that that would be a great improvement on existing conditions?—I do. Of course, in the industrial centres the trouble is difficult to deal with. Segregation already obtains in these industrial centres—you have locations, townships—and no native could live but in a town unless he has a permit of his master, but this is not sufficient protection as against the encroachment of the white people.

27. You have told us that your people want the advantages of work and education in the meantime. Would you propose that even partial segregation, which you support, could be territorial, or would you have your people segregated in the locality of industries where they could get work?—As I have said, we could have townships; we could live there and work in the industries, and have a place to which we could always go back, but you must guard us against white encroachment.

28. I suppose the basis of any movement in the direction you support must be the getting of land?—That is the first step.

29. You speak of objections that you have to the existing land system. That system, you say, makes no provision for setting apart any land for your people? — It makes no provision; it makes only a promise.

30. No provisions as regards occupation which you formerly were at liberty to avail yourselves of under the old law, and it presses hardly against your people? —Yes.

31. But was it not the design of the Act to bring about, or to try to bring about, the cultivation of land which the State believed was not profitably used before?—That may be, sir, but how would that affect us?

32. The old form of occupation of land by your people was regarded as not being in the interest of the State as a whole. Your people were not utilising the land as they ought to have done. That was the suggestion, was it not?—I believe, sir, it was the suggestion.

33. Do you suggest under the old conditions that land was being worked to its full capacity?—I do not say that. Land at the present moment, even under the supervision of the white man, is not being worked to its full capacity.

34. Have you anything to say, from your people's point of view, to this Commission of the general conditions of labour by your people in the mines? Are you in a position to speak with authority on this question?—I am not, and prefer not to make a statement.

35. About the question of townships in the neighbourhood of the mines? — The system of township would be one in which we were able to have a large plot and with a portion set off for grazing. The township should accommodate a population of about 800 upwards, and it would be necessary to allow for expansion through the increase of population.

Mr. C. S. Mabass examined.

36. **(Mr. Sinclair.)** You have heard the evidence that has been given by your colleague. Are there any points not dealt with by him which you wish to bring before the Commission? If so, we should be glad to hear them?—I endorse all he said, but there is one point with reference to the Defence Force. That point has hurt the native mind to a great extent.

37. Any views which you would like to put forward on the question of segregation we should be glad to hear, but leave out any question about the Defence Force. The policy of the Defence Force does not come within the scope of our enquiry?—We believe, then, that with reference to segregation any scheme imposed on us will not be for our benefit. That is a matter of general opinion amongst the natives, and I endorse all that my colleague has said, and I speak with twenty years' most intimate knowledge of Swaziland. We reckon that all these questions would be settled if there was a commission appointed to go into the natives' grievances. It is desirable that wider knowledge should be acquired by the State with reference to real difficulties and grievances which the natives suffer.

38. Have you anything to say to the Commission on the subject of the supply of liquor to your people?—Yes, that question is one of the reasons why we are in favour of segregation, because we put the blame mostly on the low-class whites that are about here in

the mining districts. They put our people up to a lot of bad habits and place unnecessary temptation before them.

39. In other words, that they have a bad influence on your people who, at their present stage of development, have not any great resisting powers?—I think matters would be improved if we had a system here something like the one in Durban. There, beer is brewed for the natives.

40. Have you anything to say with regard to the system of selling liquor in bottles by stores?—It is a great evil. It ruins our nation, and if the system of bottle licences was abolished we think it would be greatly to the benefit of our people.

41. Can they get liquor on credit?—No, sir.

42. Supposing a white store-keeper sells a native a bottle of liquor, is there anything to prevent him suing the native for the price?—He dare not. He knows it is illegal all the time.

43. Even if he is one of those store-keepers on the mines: Can he not do so?—No, sir.

44. Is the selling of liquor absolutely prohibited by law to the natives?—Yes, in the Transvaal.

45. And you think that if the Government introduces the Durban Corporation system, it would decrease the evil on the Rand? — It certainly would. The liquor evil is a serious menace to our people.

VI.—TRADE.

(a) Exhibitions.

CAPE OF GOOD HOPE.

Cape Town, Tuesday, 3rd March, 1914.

Mr. John William Jagger, M.L.A., Wholesale Merchant and President of the Cape Town Chamber of Commerce, called and examined.

(*For the evidence of this witness on "Statistics," "General Trade Questions," and "Legislation," see pp.* 127, 145, *and* 181 ; *and on "Land Settlement and Irrigation," on "Steamship, Post, and Telegraph Communications," on Harbours and Coal for Bunkering," on "Empire Development," and on "Fruit," see pp.* 6, 60, 102, 160, *and* 317 *of* [Cd. 7706].)

2685. **(Chairman.)** Have you any definite views on exhibitions?—Yes, I think we are apt to get too many of them. Of course, they are all right from time to time, say at longer intervals.

2686. You think the money could be spent in a better way?—I certainly think so.

TRANSVAAL.

Johannesburg, Friday, 3rd April, 1914.

Mr. Howard Wallace Soutter, Mr. Alfred Falkland Robinson, and Mr. Ernest Chappell, J.P., representing the Johannesburg Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Migration, Land Settlement, and Irrigation," see p.* 46, *on "Posts, Telegraphs, and Steamship," p.* 81, *on "Bills of Lading," p.* 91, *on "Railways, Harbours, and Coal for Bunkering and Shipment," p.* 140, *and on "Empire Development," p.* 161, *of* [Cd. 7706] ; *and on "Statistics," see p.* 130, *on "General Trade Questions," p.* 173, *and on "Legislation," p.* 183 *of this Volume.*)

The Chamber had previously furnished to the Commission the following Memorandum on the subject of Exhibitions:—

Exhibitions.

It is considered that it would be of advantage to Empire trade if there was established in London a permanent Exhibition of the productions of the several Colonies and Dominions. The Chamber desires, however, to associate itself with the protests which have been made against many of the side-shows which have been attached to some Exhibitions in the past, purporting to represent native life, &c., as being false to actual natural conditions and calculated to have harmful results.

2687. **(Mr. Sinclair.)** Does your Chamber interest itself in seeing to it that the Union is well represented in the permanent exhibit at the Imperial Institute, London?—(*Mr. Soutter*) The Chamber has represented to the Government the importance of that exhibition, but our reply from the Government has been that they are short of funds. We do not think that South Africa, at any rate, is adequately represented in the exhibition which is held in London to-day, compared with the other Dominions of the Empire. The exhibit is a very poor and inadequate one.

2688. I do not think it does justice to the Union?—No; we do not think so either.

(b) Statistics, Weights, and Measures.

CAPE OF GOOD HOPE.

Cape Town, Thursday, 26th February, 1914.

Mr. Alfred Joseph Smith Lewis, Principal of Customs Statistical and Audit Branch, Cape Town, called and examined.

2689. **(Sir Alfred Bateman.)** You are the head of the Office of Statistics and Audit in Cape Town?—Yes.

2690. You prepare statistics on imports and exports?—Yes.

2691. You have been so good as to send in answers to certain questions?—Yes.

The following were the questions submitted to the witness:—

Uniformity in Statistics.

What views are held?

1. As to the desirability of uniformity in the Mother Country and the Dominions;
2. As to the practicability of such uniformity from the South African point of view

on the following matters:—

A. Record of countries of origin and consignment.
B. Classification of imports and exports.
C. Landed value of imports.
D. Valuation of exports.
E. Statistical system of weights and measures.

It has been suggested that the way to uniformity would be smoothed if a conference of statisticians of the Empire (and possibly Customs officers) were to meet to consider such points as those enumerated above. What is your opinion on this, and as to the creation of a central statistical bureau?

The following answers were given by the witness:—

Memorandum.

The following remarks must be taken as bearing only upon statistics relating to imports and exports, which cover the scope of the department under my control.

I.—*As to the Desirability of Uniformity in the Mother Country and the Dominions.*

Imperial uniformity would seem to be so desirable that any arguments in favour of it need hardly be adduced. In this connection it might be as well, however, to refer to the South African experience prior to the 1st July, 1905, from which date the South African Customs Statistical Bureau was established with a view to securing to this portion of the Empire a comparable and uniform system of trade statistics. Previously each party to the South African Customs Union, numbering five principal adherents, compiled and published their own statistics, which were not only prepared on different classifications, but which actually adopted divergent bases of compilation: the result was not only distinctly lacking in comparability, but, in many instances, hopelessly misleading. The establishment of the central bureau, whatever it may *not* have accomplished, at any rate made correct comparisons in this quarter of the Empire possible.

Doubtless the difficulties of establishing an Empire Central Bureau will be very much greater, but the experience and resources of those who in the past have been responsible for the older systems of statistics in the Mother Country and its Dominions ought to be able to surmount these.

II.—*As to the Practicability of such Uniformity from the South African point of view on the following Matters*

A.—Record of Countries of Origin and Consignment.

The record of countries of origin of imports adopted in South Africa is not a difficult problem, inasmuch as the law provides for a definite declaration of the country in which all goods imported are grown, produced, or manufactured, in order chiefly that goods the growth, produce or manufacture of the United Kingdom or any reciprocating British possession may be admitted at a preferential rate of duty; for statistical purposes, also, a close scrutiny is maintained over the declarations by importers of countries of origin of goods imported. With regard to countries of consignment of exports the position is, however, not nearly so satisfactory; as most of the exports are carried in vessels belonging to regular lines trading between the United Kingdom and South Africa, exporters of produce are in the habit of declaring the large majority of their shipments as destined for the United Kingdom; often they are not in a position to do otherwise, for various reasons. The direct result is that the exports to the United Kingdom are unduly inflated, while it frequently happens that the export of a given commodity to a certain foreign country is known to be considerably larger than the published official figures would appear to indicate. For a concrete example of this *vide* "Cape Times" of Tuesday, 24th February, 1914, sub-leader page 8, and memorandum with schedule from Mr. R. Renner, of Johannesburg, on page 10.

B.—Classification of Imports and Exports.

So far back as August, 1907, the Board of Trade issued a note to the self-governing Colonies on this subject, the reply sent from this centre, being applicable to-day as much as at that time, might be recorded. It ran as follows:—

"All the classifications are governed very largely by the tariff items, and for the present it is not clear how it could be otherwise; a group classification satisfactory to all portions of the Empire could only be devised after careful consideration of the various tariffs of the United Kingdom and Colonies and dependent territories, and this, it is felt, could only be arrived at after conference of statistical representatives of each unit in the Empire; it might, therefore, be most advantageous for such a meeting to be arranged by the Board of Trade."

The difficulties under this head, owing to the possibility—one might almost say probability—of frequent changes of tariff in some portion of the Empire, could only be satisfactorily provided against after an interchange of views and a consequent appreciation by each unit of the difficulties of all the others in this connection, and such appreciation might result from a conference, but would not from a correspondence extending over a very lengthy period.

C.—Landed Value of Imports.

The values for imports used statistically in this Union are those upon which duty is or would be assessed *ad valorem* if a general *ad valorem* tariff existed; no additions to declared values are made in order to arrive at a statistical value, which, therefore, is an either f.o.b. or less than f.o.b. valuation.

D.—Valuation of Exports.

Valuations of exports are, in the main, accepted as declared to, and no machinery exists for the exercise of an efficient control, which under existing arrangements would be both expensive and cumbersome. Generally the market rate at time of shipment at the place of purchase for shipment is declared to by exporters.

E.—Statistical System of Weights and Measures.

For value purposes the pound sterling is the invariable basis, while for quantities the avoirdupois pound, the imperial gallon, the cubic foot, or the number of the article, &c., as the case may be, are generally shown; variations of the pound avoirdupois will be found in a few cases where the hundredweight (112 lbs.) or the ton may be used, while in the latter both the South African ton of 2,000 lbs. and the imperial ton of 2,240 lbs. are used, but are invariably qualified to that extent.

The statistical use of the decimal and metric systems could surely only follow upon their general use as the standard of the Empire.

With regard to my opinion on a Conference of Empire Statisticians and the creation of a Central Statistical Bureau, I can only add that, with regard to the former, my views have undergone no change since I penned the opinion in 1907, given above in inverted commas in my comments on Item 2, B, of the Memorandum of the Secretary to the Commission.

With reference to the latter I fear that my comparative lack of experience does not warrant my expressing a very definite opinion.

2692. **(Sir Alfred Bateman.)** Taking first the desirability of uniformity between the Mother Country and the Dominions: you are in favour of uniformity?—Yes.

2693. You say that already, for the whole of South Africa, you have a comparable system of trade statistics?—Yes.

2694. Now, as to the origin of imports, you say that is not so difficult a problem. You require a certificate of origin for the purpose of preference?—Yes.

2695. How much of the value of goods has to be manufactured in the United Kingdom?—25 per cent.

2696. Have the goods to be finished there?—Not necessarily.

2697. As regards the exports, you say you have a difficulty in declaring the true country of consignment?—Yes.

2698. Why is that? Are the exporters unable to give you the country of consignment?—In many cases they do not know where it is going. It depends on the market value when it reaches the European market, and the shipper here does not know the final destination.

2699. Do the exports go mostly in liners?—I think the reason is because the liners are regular traders which have a destination in some port of the United Kingdom.

2700. Now, in regard to imports and exports, you received a Circular from the Board of Trade?—Yes, in 1907.

2701. You consider it would be difficult to make a comparison between one country and another except on broad lines?—Yes. Take, for instance, the usual classification of unmanufactured articles. Things

which are "unmanufactured articles" in this country are "manufactured" in the United Kingdom. There are numerous examples of such articles in the tariff list.

2702. Is duty payable on the value of the goods in the country from which they come f.o.b.?—Not necessarily. It may be less than f.o.b., where supplied or manufactured from an inland place, as railage is not liable to duty.

2703. That is very liberal to the payers of the duty?—Hardly that, because I take it that if the valuation was necessarily greater it would be on a higher basis, and the incidence of taxation might be less.

2704. I thought the duties were all on an *ad valorem* basis?—But that basis has been increased from 9 to 25 in recent years.

2705. If you take a smaller value it means a smaller payment?—But if you paid on a higher value, you might have a lower rate fixed.

2706. As regards the valuation of exports, you see great difficulties?—Yes. In the case of imports you have the invoices, and the importer's declaration is accepted, but it would be impossible with my staff to carry on a large system of query of values. Take a staple product like wool, for instance, the market fluctuates very rapidly and we have to depend entirely upon the values declared by the exporters.

2707. You know what is the market price at the time?—Yes, but unfortunately, as matters stand, I have not the staff.

2708. In the United Kingdom the value is declared by the exporter, and it is gone through by the Customs, who very often send the entry back, pointing out, for example, that wool is now 1s. instead of 10*d*.?—Where economy can be effected and a loss of revenue does not result from such economy, the instructions are frequently to cut down expenses, and I am afraid that, in the past, statistics have suffered in this country in consequence.

2709. You think that sufficient attention is not paid to statistics—that people do not know the value of them?—Yes.

2710. You think that advantage might arise from a conference of statisticians, among them being included the Customs officers who compile statistics of trade?—Yes. I have worked out the South African analogy to show that if Imperial comparability is desirable it can only be attained by having a conference so that the difficulties which centre round the subject may be realised by all, and, as a matter of fact, the comparability that is possible in South Africa and has been since 1906 was only brought about by a conference which ultimately decided on the formation of the first Federation Office in South Africa—the Customs Statistical Bureau.

2711. As regards a Central Bureau for the Empire, you do not express an opinion?—I have not sufficient experience.

2712. But you would be pleased to see statistics of the Empire brought out in uniformity and at frequent intervals?—Yes.

2713. **(Sir Jan Langerman.)** I have had complaints made in regard to invoices which are twofold—the 100 lbs. and the cwt., and also the 2,000 lbs. and the 2,240 lbs. ton, which entails a lot of wasted time in calculations. What is the desire of the traders? To adopt the 100 lbs. and the 2,000 lbs. ton?—I could not say.

2714. What is your opinion?—I have no difficulty, statistically speaking, because we distinguish in every case as to the denomination. We never say 100 lbs. We say one cwt.; and we would take the ton as it is declared. It is so here, because that is the ordinary standard for selling the goods, and we specially distinguish between the Cape and the English ton.

2715. The practice of the Union is in favour of the 2,000 lbs. ton?—That depends, because when you come to the export of copper ore, you find the English ton is used. When you come to the export of coal, on the other hand, you find the South African ton is used.

2716. So you would like to have uniformity?—It does not make any difference to us specially, because, as I say, we are careful to distinguish and guard against any mistake.

2717. Does it not cause you more labour?—No.

2718. **(Mr. Sinclair.)** Have you any difficulty about declarations as to countries of origin?—As far as I can judge, we have not. It is more a matter which concerns the Customs Department than the Statistical Department.

2719. You cannot give us any information as to whether goods come here from London and get preference, the origin of which has been some other country?—I do not think there is much risk of that, because the certificate of preference is in a certain form and signed by a responsible officer of the supplier or manufacturer.

2720. In the Mother Country?—In the place of manufacture wherever it may be, if in the Mother Country or other reciprocating British possessions; not necessarily in the Mother Country.

2721. Do you think that works satisfactorily?—As far as I can judge.

2722. You have heard no complaints?—None have reached me.

2723. **(Mr. Garnett.)** I am under the impression you said that the goods were not necessarily finished in the United Kingdom?—I do not know that there is any restriction as regards finish.

2724. That is to say, if an article on which the bulk of the labour had been expended in England had received some subsidiary process elsewhere, that would be still considered an article of English origin?—Provided it was shipped from an English port and covered by the necessary certificate.

2725. Take calico, for instance, that may have been sent to Holland, say, for some finishing process, reimported into England and then sent here?—I take it that the manufacturer, if he could, would make out the certificate.

2726. **(Mr. Campbell.)** What system have you of collecting statistics here—agricultural statistics?—That would not come under my notice. I am only concerned with Customs.

2727. In regard to your Customs statistics. I see you are rather shy about answering the question of a Central Bureau of Imperial Statistics, but do you not think with regard to trade and commerce there is a fairly large body of Imperial statistics that need publication, and that are not now published, because there is no part of the Empire that is prepared to undertake the responsibility or expense?—I quite agree with the establishment of the Central Statistical Bureau for the preparation of Imperial statistics. My only reticence is in regard to the fact that I have not had any special statistical training. I was in the Customs Department and was detached for the purpose of forming a statistics office. My own experience has, therefore, been rather narrow, and all in this country. Although I feel strongly on the matter, I hesitate to give an opinion before men who have made a bigger study of the matter and have Empire experience.

2728. But you are in favour?—Yes.

2729. **(Sir Alfred Bateman.)** You refer here to a statement in the paper with regard to trade with Germany. I think it was in the newspaper yesterday. The German accounts show double the value of goods from South Africa that are shown from the export accounts here. That confirms what you said about your difficulty in regard to the country of consignment?—Yes.

2730. It makes a very important difference?—Yes. You find the difference most largely in regard to wool and feathers and a few other items of that description But you find, in some instances, that the items almost entirely agree. Take Buchu leaves, for example: 2,750 in the German accounts and 2,745 in ours.

2731. But in these big staples which are dealt with in the United Kingdom it does make a big difference in the aggregate?—Yes. It is the same with America.

2732. Your exports to the United Kingdom are not so large as they appear in your accounts, then?—No.

Cape Town, Tuesday, 3rd March, 1914.

Mr. JOHN WILLIAM JAGGER, M.L.A., Wholesale Merchant and President of the Cape Town Chamber of Commerce, called and examined.

(*For evidence of this witness on "Exhibitions," "General Trade Questions," and "Legislation," see pp.* 124, 145, *and* 181; *and on "Land Settlement and Irrigation," "Steamships, Post, and Telegraph Communications," "Harbours and Coal for Bunkering," "Empire Development," and on "Fruit," see pp.* 6, 60, 102, 160, *and* 317 *of* [Cd. 7706].)

2733. **(Chairman.)** Can you give us any information as to statistics?—We find a big difficulty about statistics in that we can never make any comparisons between our export trade and the imports into Great Britain. There must be a very great disparity somewhere.

2734. **(Sir Alfred Bateman.)** You mean to say that exports from here are entered to Great Britain when no doubt they are going through to Germany; take wool, for instance?—I do not know what the reasons are, but the figures are practically useless.

2735. You know that they have been working for that object in England for years past, and they get considerable help by having the country of consignment given in the trade accounts. I think they have now two tables, and you ought to have the same thing here; I daresay you have noticed in our Second Interim Report* the same thing in connection with Australia. They cannot do much, however, without having a conference of statisticians?—Yes.

2736. **(Chairman.)** You speak also on weights and measures, do you not?—Yes; of course, we have a long way to go locally in regard to that matter. At present we have no general law for the whole of the country. We have pressed the Government a good many times to bring in a Bill to bring this about, but the Bill has never gone through yet. We have received correspondence from the Decimal Association to urge for a decimal system. But the position we have always taken up is this: when the Mother Country adopts it we will think about it. Of course, we have a system here under which our ton differs from yours. We take 2,000 lbs. as a ton and 100 lbs. as the cwt.

* [Cd. 7210.]

NATAL.

Durban, Monday, 23rd March, 1914.

Mr. ALEXANDER BUCHANAN, Chairman, and Mr. WALTER BUTCHER, Vice-Chairman, of the Durban Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "General Trade Questions," see p.* 162 *and Appendix I., p.* 175; *and on "Ocean Freights," see p.* 78 *of* [Cd. 7706].)

2737. **(Chairman.)** Will you please read your memorandum in regard to weights and measures?—**(Mr. Buchanan.)** Yes.

The following memorandum was read by the witness:—

The question of legislating for the introduction of the metric or decimal system of weights and measures, as official and alternative or additional to the standards at present in use, and for securing uniformity in all Provinces of the South African Dominion, has for some time had the attention of Government. In the year 1910, and again in 1912, a draft Weights and Measures Bill was published, which provided for the concurrent use of the metric system and the Imperial standards of weights and measures. The draft Bill was fully discussed at the time by the Committee of the Chamber, and it was resolved to notify members of the Legislative Assembly representing the Durban constituencies "That this Chamber is, on grounds of general convenience, opposed to the compulsory use of the metric or any other improved system of weights and measures in South Africa before it is brought into general use in the Empire." Their attention was also drawn to the simplicity of the American methods of quoting all weights and measures in terms of pounds, feet, and gallons, all other terms being abandoned. Apart from the question of metric standard, it may interest your Commission to note that this draft Bill provides that all goods sold by weight shall be sold by nett weight, and that all goods sold in made-up packages or vessels shall have the nett weight or contents clearly marked on the package or container. The same ruling would, of course, apply to liquids sold by measure, and it is suggested that legislation to the same effect throughout the Empire would be advantageous. Unfortunately, circumstances have prevented further discussion of the Bill in our Parliament, but there is little doubt that it will be brought forward again at an early date.

2738. Those measures are in force in America, or proposed?—I believe in force.

2739. And you suggest their adoption in the Empire in preference to the metric system or independently of the question of the metric system?—Yes, independently.

2740. **(Mr. Lorimer.)** Is this a live question with you?—No. Our feeling is that we do not want the metric system introduced here until it is introduced in a compulsory manner throughout the British Empire.

2741. **(Chairman.)** I think that is in consonance with the view this Commission has adopted, that there was no use in going into this question in detail until action had been taken in the Mother Country?—Yes; we have here a very cosmopolitan population, and we think it is necessary in every way to maintain as many ties with the Mother Country as possible.

2742. **(Sir Alfred Bateman.)** I do not think you really mean to recommend the American system of weights and measures, do you, because they still have the Winchester bushel and the Winchester gallon, do they not?—We want to do away with these obsolete weights and measures.

2743. You want pounds; but do you want hundredweights and pounds?—We deal with pounds and multiples of pounds; you might sell, say, 100 lbs. or 1,000 lbs. We suggest the use of pounds and the disuse of tons, cwts., and quarters.

2744. I do not quite see the reference to American methods?—At present, for instance, in regard to tons,

you have the short ton of 2,000 lbs. in this country, and the ton of 2,240 in the Mother Country.

2745. In shipping you have the ton of 2,240 lbs., don't you?—Yes, in this country, and yet the articles that are bought and sold are by the ton of 2,000 lbs.

2746. **(Mr. Campbell.)** Do you use the same system of weights and measures throughout the Union? I notice in this Province you speak of acres, and in other Provinces of morgen, as a measure of area. And as a measure of capacity they use the muid in the Cape: do they use the same measures here, or the English system?—The draft Bill provides for the abolition of all these old measures. As regards the terms morgen and acres, it all depends on the terms used in the title deeds. In referring to a farm the title deeds of which speak of it as having an area of so many morgen you use the term morgen.

2747. But, generally speaking, among corporate bodies, do they use the acre or the morgen as a land measure?—In Natal the Government use the acre.

2748. Whereas in the Cape Colony they use the morgen?—Yes.

2749. Is the muid used here?—Yes.

2750. Generally?—Yes. In the case of whole mealies a muid is 203 lbs. gross or 200 nett. If you are dealing in crushed mealies the muid is 180 lbs.; if potatoes 150 lbs.

2751. Is not the muid also a wine measure?—I have not heard of that. The muid is a dry measure.

TRANSVAAL.

Pretoria, Monday, 30th March, 1914.

Mr. John Bruce Moffat, Director of Census and formerly Secretary of the Economic Commission, called and examined.

(*For evidence of this witness on "Animal and Agricultural Produce" see p.* 249 *of* [Cd. 7706].)

The following is an extract from a letter sent to the witness on March 20th, 1914:—

The questions on which the Commission would particularly like to hear your views may be summarised thus:—

1. As to the desirability of uniformity in statistics between the Mother Country and the Dominions.
2. As to the practicability of such uniformity from the South African point of view on the following matters:—
   - A. Record of countries of origin and consignment.
   - B. Classification of imports and exports.
   - C. Landed value of imports.
   - D. Valuation of exports.
   - E. Statistical system of weights and measures.

It has been suggested that the way to uniformity would be smoothed if a Conference of Statisticians of the Empire (and, possibly, Customs Officers) were to meet to consider such points as those enumerated above. What is your opinion on this, and as to the creation of a Central Statistical Bureau?

In reply, the following memorandum was furnished:—

The Secretary's letter dated 20th March only reached me on the evening of the 25th instant as I was leaving Capetown.

I have, therefore, not had time to go very deeply into the questions submitted.

My functions as Director of Census are at present limited mainly to arranging for and taking the quinquennial census in the Union.

I have no personal experience of the working of the Customs Statistical Bureau. My views on the several questions submitted are, therefore, those of an outsider, without practical knowledge of the methods adopted by the Customs Department in dealing with statistics of imports and exports.

Question 1.

The desirability of securing uniformity in statistics between the Mother Country and the Dominions in dealing with the matters referred to is obvious if the information collected and published is to be of any value for comparative purposes and for combination of the returns of the different Dominions.

Question 2.

As to the practicability of such uniformity from a South African point of view, as explained above I have no practical experience in these matters, and while, personally, I think that the difficulties in the way of securing uniformity ought not to be insuperable, I could not express an opinion of any value without a full acquaintance with the methods adopted by the Customs Department in dealing with the recording and classification of the details relating to imports and exports.

A conference of representatives of the Mother Country and of all the Dominions and Colonies would undoubtedly be the most satisfactory method of dealing with the question of securing uniformity not only in trade returns, but in statistics generally.

I would suggest that at such a conference each Dominion and Colony should arrange to be represented by delegates conversant with the collection of general statistics and by Customs officers.

The conference could divide its work into sections, say, roughly—

No. 1. To deal with population, vital statistics, and general statistics.

No. 2. To deal with statistics of production, such as agriculture, livestock, manufactures, mineral products, &c.

No. 3. To deal with trade.

No. 2 might be subdivided into (*a*) agriculture and livestock and (*b*) manufactures, mining products, &c.

Such a conference should be able to arrive at some satisfactory solution of the difficulty hitherto experienced in securing returns from all Dominions which can be compared and combined.

Instead of a central statistical bureau I think it would be preferable to arrange that each of the departments in England should act as a central bureau for its particular section.

Thus the Registrar-General's office in London should be the central authority to collect and publish population and vital statistics for the Empire, the Board of Agriculture to deal with agricultural and livestock statistics, and the Board of Trade to deal with trade returns and statistics of manufactures, &c.

2752. **(Chairman.)** You have been kind enough to answer certain questions which the Commission has put to you. In the first place you state that the desirability of securing uniformity between the Mother Country and the Dominions in dealing with the matters referred to is obvious if the information collected and published is to be of any value for comparative purposes and for combination of the returns of the different Dominions?—Yes.

2753. Have you anything to add to that. You say you desire to see uniformity established as rapidly as possible?—I think it ought to be.

2754. And your proposal in regard to the method of obtaining it is to have a conference between the

Customs and the Statistical Officers of the Mother Country and the Dominions, is it not?—Yes.

2755. Have you any special recommendations to make in regard to the conference?—Well, I would suggest that the Dominions should be represented by officers acquainted with statistics generally, and by Customs officers.

2756. You have also a suggestion to make, I think, in regard to the division of work of the conference into sections?—Yes, I think the conference could probably do its work more expeditiously if it divided the work into sections.

2757. The first sections deal with the population, vital statistics, and general statistics?—Yes.

2758. Secondly, dealing with statistics of production such as agricultural live stock, manufactures, and mineral products, and thirdly with trade?—Yes.

2759. Have you anything to add to that suggestion?—No.

2760. Then there is a further question on which you have given your opinion, that instead of a Central Statistical Bureau, it would be preferable to arrange that each of the departments in England should act as a Central Bureau for its particular section. Will you explain that point?—It seems to me that by having one Central Bureau dealing with all of them, they would overlap the various departments. For instance, the Board of Agriculture could deal much more efficiently with agricultural statistics on account of their expert knowledge, and the same with the Board of Trade.

2761. You rather decentralise statistical work into each of the technical departments?—Yes.

2762. **(Sir Alfred Bateman.)** I do not think we have much time, but I should like to have spoken to you about the deficiency of statistics in South Africa, and to ask what steps you are taking to remedy those deficiencies. How often is the Census taken?—Every five years. It is proposed that I should take over the collection of agricultural statistics, but we cannot do anything in this direction until we get an Act of Parliament.

2763. The statistics at the present time are purely voluntary?—Yes, but, of course, the Census ones are not voluntary.

2764. Is there a penalty?—Yes.

2765. How were the agricultural statistics taken?—Enumerators went round the country to the farms and either filled up the form themselves or got the farmer to do so. If the farmer could not fill it up himself, he gave the information to the enumerator and he filled it up.

2766. What is about the margin of error in those figures, a good deal, is it not?—I suppose the larger number would average out fairly closely in regard to live stock and production, but in regard to the acreage under cultivation I am not so sure. Very few farmers know exactly what land they have under cultivation.

2767. They do not know how many morgen?—No.

2768. But they fill in something?—Yes. My proposal is to work on the basis of the quantity of seed sown in future. We can tell from each district what the average quantity sown per morgen is, and calculate the acreage accordingly.

2769. I have been looking over your pamphlet in regard to the proposed scheme of agricultural statistics, and I think you are going on the right lines. You have evidently studied the American system as well as the English system?—Yes.

2770. This will be a very excellent scheme when it comes about. Now, in regard to other statistics as to labour and prices, what do you propose to do there?—That only refers to agricultural statistics, but I may say that I have drafted a Bill which is at Cape Town, and of which I can let you have a copy. I have not yet got it as finally approved. That Bill covers all statistics.

2771. I have been simply thirsting for statistics ever since I came to this country. Wherever we have been they have told us there is only the Census, and that is said not to be accurate, but you propose, I understand, to get statistics in regard to other branches?—Yes. The Bill gives power to collect all kinds of statistics, produce, manufacturing, labour, and so on.

2772. On the general question that was asked of you in regard to a statistical conference, you make certain suggestions?—Yes.

2773. You do not want an Imperial Department in London, or an Imperial Commission to deal with statistics, but you want to divide them up very much as they are done now?—Yes.

2773A. That is to say, our Registrar-General in London should deal with statistics so far as births and deaths are concerned?—Yes, and population.

2774. And the Board of Agriculture should take over all agricultural statistics of the Empire?—Yes.

2775. And the Board of Trade. You say nothing about labour statistics?—I am not sure, but I think the Board of Trade deals with those.

2776. They do. You have made very good use of them in the excellent report of the Economic Commission, and you evidently know where these things come from?—Yes, I suppose they do deal with them now.

2777. But you are against a Central Bureau?—I do not see any particular object in having a separate Central Statistical Office.

2778. A Central Statistical Department for the Empire?—No, I think it better for each department to deal with its own.

2779. But you tack some further work on to the Board of Trade. They have already compiled a good deal of statistical information for the Empire, and you would make them do a little more?—Yes, if the Dominions combined they could be made more complete.

2780. Are you of opinion that the labours of the proposed Conference would be helped very much by appointing one or two people previously to work on the subject and bring out the essential points by correspondence between the Dominions, so as to get a preliminary agreement on the main lines?—Yes, that would save a great deal of work when the Conference met.

2781. You would have that, and you would divide the Conference into several sections?—Yes.

2782. If this preliminary work were done and the Conference were divided into sections there is no reason why in a moderate time, perhaps a few weeks, you should not complete it?—Yes, if the thing was properly threshed out beforehand.

2783. But if you all simply met together with no programme arranged mutually, it would take a long time?—That is so.

2784. And so far as this Government is concerned you seem inclined to improve your statistics to a very large extent?—Yes.

2785. What is your present staff in the Census Office?—I have five clerks. Since the Census the Government asked me to collect statistics from all Departments. I publish them in a Year Book somewhat on the lines of the Australian Year Book, and we have being doing that during the last year.

2786. You have not got the book out yet, have you?—No. We have had great difficulty in getting returns from the different Departments.

2787. Does each Department stick to its own statistics?—Yes.

2788. Have you difficulty in getting trade statistics from the Customs Departments?—Well, we simply take their Annual Book and extract the information we require.

2789. But to bring the book out quickly you should have returns from them before they are published in the ordinary way?—Yes. We generally do get them before the return comes out.

2790. Have you any system of getting into consultation with the officers of the Customs as to forms and the information they get?—No. Just before Union an Inter-Colonial Commission sat and drew up forms and returns for everything—trade, agriculture, and every branch of statistics, and when I was asked to undertake this work and make up this book, we sent these forms to the Departments concerned and we said, "That is what is wanted." But very few were able to give the information. Some of the forms were impracticable and useless.

2791. They did not give anything?—We got returns from them as far as they could give them.

2792. Will your annual volume be on the lines of Mr. Knibbs's excellent work in Australia?—I have taken that as an example.

2793. But will it be on the lines of the Board of Trade publication, which consists strictly of

figures?—I have not attempted to give any letterpress. I have simply given tables.

2794. Then it is more on the Board of Trade lines. You do not, practically, have any descriptive matter?—No.

2795. Are you familiar with the American statistics?—I went to Washington last year and looked into their system of agricultural statistics.

2796. And what did you think of them?—They are very good. Their statistics are only estimates, they do not attempt any enumeration except the Census.

2797. In your agricultural statistics, as regards the condition of crops, shall you try to be numerical or only descriptive?—I only propose to take a percentage.

2798. You will take 100 as normal?—Yes, I was going to take 100 as normal and ask my correspondents to take that figure as normal.

2799. Shall you have any difficulty in getting local correspondents?—Well, I have sent circulars out to many local men and a good number of them will have no objection to do the work. Some of them want to be paid, however.

2800. Is there any system of payment for this kind of work. I believe that in America, for instance, they make presents to these local people of copies of the Blue Books and other information?—There is no system of payment here at present for this kind of work, but a certain number of people will do it, I think.

Johannesburg, Friday, 3rd April, 1914.

Mr. Howard Wallace Soutter, Mr. Alfred Falkland Robinson, and Mr. Ernest Chappell, J.P., representing the Johannesburg Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Migration, Land Settlement, and Irrigation," see p.* 46, *on "Posts, Telegraphs, and Steamships," p.* 81; *on "Bills of Lading," p.* 91; *on "Railways, Harbours and Coal for Bunkering and Shipment," p.* 140, *and on "Empire Development," p.* 161 *of* [Cd. 7706]; *and on "Exhibitions," see p.* 124, *on "General Trade Questions," p.* 173, *and on "Legislation," p.* 183 *of this volume.*

The following statement as to improvements in statistical methods was furnished to the Commission in a letter from the Johannesburg Chamber of Commerce, dated February 4th:—

The Chambers of Commerce of South Africa have, for several years, urged on the Government the great need which exists here for a properly organised Statistical Department, and in this connection has pointed out what is done in Australia and Canada.

The Chamber is strongly in favour of the proposal which it is understood has been made to your Commission, viz., that statistics as to production, trade, shipping, labour, &c., should be prepared on a uniform basis in the United Kingdom and all the self-governing Dominions; and that the information, besides being published locally, should be forwarded by each Dominion to a Central Office in London, where the whole would be collated and published in a form which would facilitate comparisons.

and Mr. Soutter read the following additional memorandum:—

Improvement of Statistical Methods. — We believe that the Premier, General Botha, has felt the importance of an improvement in the Statistical Department, and that the Government sought expert advice and are establishing a Statistical Department which, we understand, will be under the management of the Secretary of the Economic Commission which sat here last year.

At the present time, there are the statistics from the Mines Department and the Railway and Customs Departments, but we have no full and reliable statistics as to production, trade, shipping, and labour, and we should suggest that a permanent office of statistics be established in the Union, which would obtain adequate and reliable information, as far as the Union of South Africa is concerned, and that this information should be on a uniform basis with that of the United Kingdom and of the self-governing Dominions. We further suggest that this information should be collated in a central office in London, and published in a form which would facilitate comparison.

2801. **(Mr. Sinclair.)** You support the views that have been put before this Commission in different directions for a uniform basis of statistics so far as it is possible to collate them?—(*Mr. Chappell.*) Yes; it would be of great advantage.

2802. **(Sir Alfred Bateman.)** You comment very rightly on the want of statistics here, but I have seen Mr. Moffat, and I think you are going to have considerable improvement in that direction in the future. There are schemes under consideration and likely to be adopted which will improve your statistics immensely?—(*Mr. Soutter.*) What we are rather anxious about is that the new department should be on a proper basis, so that the figures from the various parts of the Union can be easily collated in a central office, so that the particulars can be arranged on as sound a basis and in as simple a form as possible for comparison.

2803. I do not know whether you have considered the proposal which was made to us in Australia that there should be a conference at home in a year or so of the statisticians of the different Dominions so as to get nearer to uniformity?—I think that would be excellent.

2804. Then you would have the advantage of starting your statistical bureau on up-to-date lines, and you would be in close uniformity with the rest of the Empire?—Yes, which is necessary.

2805. You do not contemplate that your statistics should go home to be published—you would have your own Year Book?—Yes, but it might be possible for a central office in London to collate those statistics from the Dominions and publish them.

2806. It is done to a certain extent by the Board of Trade now, only it might be done better, possibly, if there were in existence an executive committee such as you propose of the Imperial Conference. But the worst of bringing everything together before you publish it is that you go the pace of the slowest Dominion. So, I think, it was contemplated you should have your own Year Book and only abstracts should be published in England on the same uniform basis: do you think that would be desirable?—Yes.

[*See also Sir R. S. Holland, Q.* 2909, *p.* 140.]

(c) General Trade Questions.

CAPE OF GOOD HOPE.

Cape Town, Monday, 2nd March, 1914.

Sir Reginald Sothern Holland, His Majesty's Trade Commissioner in South Africa, called and examined.

2807. **(Sir Alfred Bateman.)** I think you have been in your present post 5½ years?—Yes.

2808. Before that you had South African experience?—Yes, I was in the public service of the Cape of Good Hope for a period of some 17 years.

2809. And you have been Private Secretary to Sir Gordon Sprigg during his Premiership and to Sir Starr Jameson when he was Prime Minister?—Yes.

2810. You have prepared a very excellent report with a view to the Commission coming out here. Several members have expressed to me their appreciation of the way in which this report* was compiled, and I think that I may say on my own behalf also that we consider it a very valuable document and one that will help us very much.

First of all as to the alien population. I do not know whether we shall be able to get much help from figures, but is it a fact that the coloured population is increasing faster than the white?—Yes; according to the calculations based on the last Census report.

2811. It would also appear that recent departures from this country exceed the arrivals?—I do not know how far the figures can be accepted as entirely reliable.

2812. At the bottom of page 4 you give these revised figures, comparing the Census for 1904 and 1911, and allowing for the circumstances under which the Census was taken in 1904, the European population, exclusive of the Native Protectorates, shows an increase of 15·86 per cent. and the Native 14·19 per cent. That would show a larger increase in the case of the whites?—Yes, but that result takes into consideration certain factors, the most important being the return to East Africa of labourers from the mines. If you leave out these figures, the Indian immigrant population and the reduction of the garrison, that is the result arrived at.

2813. There is nothing to help us as regards births and deaths. I suppose there are no such figures in regard to the Native Reserves?—I cannot say definitely, but I think some figures are available.

2814. Passing to the collection of statistics concerning agricultural development, do you happen to know whether this has been a compulsory or voluntary result?—Voluntary, but I may mention, for the information of the Commission, that the Government has recently decided on a systematic collection of agricultural statistics which will provide information which we have not had hitherto, the most important data required being in connection with native-grown crops, such as maize, which has recently had to be brought from Europe after exportation from South Africa. Instances of that sort will be obviated by a proper forecast of agricultural crops.

2815. You draw attention to the need of having proper statistics?—Yes, on page 7.

2816. You have had difficulty also with your trade figures?—Yes. The Customs Department, for purely financial reasons, I understand, decided upon the withdrawal of a table which was of the utmost value to us. That table gave the total value of imports under categories from each country into British South Africa, treated as a statistical unit. Other tables cover imports into the Union and Rhodesia shown separately, but as they take no account of re-exports from one part of the country to another the information required cannot be arrived at.

2817. Taking the imports into account, you draw attention to the decline in mining and electrical goods, and you rightly say that comparing one year with another is not much of a guide?—No.

2818. Because there has been a great conversion of power on the Rand, has there not?—Yes. The conversion has been from steam to electric drive on all mines. In the case of some groups they have their own independent plant, for instance, the Robinson and the Farrar Anglo-French groups, but other groups depend on the Victoria Falls Company for electric power supply.

2819. The thing that strikes one is the large amount of Drugs and Chemicals, on page 17, which has risen from 490,000*l.* to 572,000*l.* last year. Is that not a very large figure?—I think, if you examine the report in respect of other classes of imports, you will find equally large increases.

2820. I suppose this cannot be regarded as such a large drug-taking population?—I am afraid it is. People swallow far more than is good for them.

2821. Now, passing to page 19, Imports of general merchandise from the United Kingdom. That does not show a large change in the percentage?—No; as a matter of fact, in 1912 there was a very slight fall, but that, to my mind, is accounted for by the drought. There is a similar effect on the figures for 1913, but more pronounced, if anything. I might explain that during a period of drought the country has to import a larger proportion of foodstuffs, and these come from other Dominions, chiefly Australia and Canada. That, of course, swells the importations of these countries and it affects the importations from the United Kingdom, because South Africa then has less to spend on manufactured articles; the imports from Great Britain being essentially manufactured articles.

2822. In that table do you leave out goods which are not in competition, and which are supplied by other countries?—No. That table takes account of all imports. If we eliminated non-competitive goods, we should show a very different result. I think it is generally admitted that in competitive trades we are more than holding our own. There are certain branches which might be improved.

2823. Now, passing on to your special work. Of course, we know that the number of letters received is not necessarily a good guide, but still it is a rough guide as to the progress of your Department. In five years your letters have been increased from 1,363 to 3,213?—Yes; that is incoming letters.

2824. And the outgoing letters are rather more than double?—Yes. As you say, I do not think the actual amount of correspondence is a true indication of the volume or the value of work done. I have made a special effort not only to serve the interests of manufacturers on the other side, but to be of some use locally, and by so doing it has served a dual purpose. Information has been accumulated in my office which is of real benefit to people in the Union itself, and I find that as time goes on the office is being made more and more use of, not only by people in the trade, but frequently I receive enquiries from Government Departments for information, and I think the office is becoming firmly established.

2825. Are you in touch with all the Government Departments here?—Yes. I receive most cordial

* [Cd. 7023].

support from all Departments of the Union Government.

2826. And I think there is a note also that you have a good many oversea firms in touch with you—1,400?—Yes. I have actually rendered some service or other to 1,400 individual manufacturing firms. I mean British manufacturing firms who have required some assistance in their trade dealings with South Africa.

2827. And you are keeping in touch with the agents of British firms over here?—Yes. I make a point of doing so. One of the greatest services which a Trade Commissioner can render to a manufacturer is to guide him in matters of local representation. Owing to the pressure of foreign competition, and the representation of foreign firms in oversea markets, it becomes necessary for British firms to have direct or indirect representation.

2828. You do not believe in catalogues distributed broadcast being enough? No. I think catalogues are not sufficient, and I have provided a permanent bureau for the filing of catalogues of British firms. These catalogues are always accessible to local merchants and others.

2829. How about the merchants here? Do they support you?—Yes. Without the support of merchants here, one would be helpless. I have invariably received the most cordial support and assistance from merchants in all parts of the Union.

2830. How are you able to look after Johannesburg, which is 1,000 miles off?—I might explain that when the Commercial Intelligence Department of the Board of Trade first started to organise the work on behalf of British interests in oversea Dominions, they appointed what were termed "Imperial Trade Correspondents." These appointments were carried on, and the services of these correspondents have been most valuable, though more particularly in the past, before Commissioners were appointed. At the present time we have an Imperial Trade Correspondent at Johannesburg and at four other centres. Whether the system will be continued or not I am not prepared to say. At the present time all enquiries that cannot be dealt with here are referred to Johannesburg, or whatever centre is concerned. I may say that it has been my practice in the past to tour South Africa at least twice a year, and a good deal of work is put in when I happen to be at these centres.

2831. How much time does that take?—It depends on the length of time I stay in each place. I should say that at least three months a year is taken up in travelling in South Africa.

2832. You have also to go to England pretty often?—Every two years.

2833. You want to draw attention to one or two cases in which the Commission received evidence in London?—Yes. I think it is advisable that the Commission should receive evidence on one or two points.

I should like first to refer to some evidence given before the Commission by Mr. Speakman in London, on behalf of the Manchester Chamber of Commerce. On page 186 of Part II. of the Minutes of Evidence first taken in London [Cd. 6517], he said:—"The Manchester Chamber of Commerce are of opinion that the time allowed to British firms for the preparation and forwarding of tenders for Colonial Government contracts is, in many instances, quite inadequate." Instances were given in support of this statement, and the Manchester Chamber finally expressed the ". . . hope that the Commission will report in favour of the granting of adequate time to British contractors, in all cases when British tenders are invited."

The attitude of the Manchester Chamber of Commerce is one commonly entertained by manufacturers in different parts of the United Kingdom, but it opens up very contentious ground, and I think it necessary that the Commission should be in possession of the reasons which render it unlikely, in my opinion, that a modification of the present system will be brought about.

The question of urging upon public departments and local bodies the desirability of extending the periods fixed for the receipt of tenders, in order to afford home firms the desired opportunity to participate, has engaged my constant attention. Arrangements have been concluded with all Government departments, and the principal municipalities, &c., whereby particulars of any important tenders are at once communicated to the Trade Commissioner's Office. These particulars are immediately transmitted to the Board of Trade by letter or by cable, as circumstances require, provided always that sufficient time is allowed to enable home firms to tender. A copy of the specification, drawings, &c., invariably follows by the earliest opportunity for the guidance of firms not represented in the South African market.

By the arrangements thus made the Board of Trade are kept posted with complete details of all important public contracts open to tender, but no amount of organization can possibly assist home firms not represented in the South African market with regard to the large bulk of every-day orders placed with local merchants for reasons of expediency as well as of policy.

To emphasise the great pressure brought to bear on the Government by local merchants against the purchase of goods oversea, I submit, for the information of the Commission, the following extract taken from the Minutes of the last meeting (January, 1914) of the Johannesburg Chamber of Commerce, which should prove of special interest in view of the representations of the Manchester Chamber of Commerce.

"Your Committee has addressed the following representations to the Prime Minister in connection with the Office of the High Commissioner in London, viz.:—

> "'I have the honour, by your direction, to refer to the vacancy which now exists in the above office owing to the lamented death of Sir Richard Solomon.
>
> "'My Committee desires, in the first place, to endorse the views which it is understood the South African National Union have submitted as to the desirability of appointing to the office someone who will see that this country's productions and capabilities are well advertised in England.
>
> "'My Chamber would, however, further submit that the time is now opportune for carrying into effect an alteration in regard to the purchasing of supplies for the several Government Departments of the Union and of the South African railways.
>
> "'The Johannesburg and other Chambers have for several years represented the desirability of placing contracts for Government Departments with South African firms instead of through the High Commissioner; and the Association of Chambers of Commerce of South Africa has at its annual congresses passed resolutions asking "that in the general interests of South Africa the present methods of purchasing supplies for Government Departments should be revised and the necessary supplies obtained by tender through South African merchants or agents."
>
> "'In pressing this recommendation, the Chamber considers it unnecessary to explain in detail the advantages which would accrue to the country if orders were placed with South African firms. The latter have sunk large sums of capital here, they are considerable tax-payers, and employ a large number of persons. To increase their trade, therefore, is to proportionately add to these contributions to economic progress.
>
> "'As you are aware, during the period of Crown Colony Government supplies were obtained through the Crown Agents, and the consequent disadvantages were notorious. Frequently, goods were not bought at the lowest prices available, and in other instances goods purchased were found on arrival to be unsuitable, besides which, owing to delays, some departments were led to order too heavily on account of the uncertainty as to delivery. As is well known, large surplus stocks accumulated and had to be disposed of at much below cost. It is admitted that steps have been taken in recent years to remove some of the disadvantages under which firms here suffered in competing with oversea firms for Government requirements; but it is contended that further action in this direction could be taken with advantage to this country.

"'My Chamber is informed that the supplies for the Government Departments and Railways of Australia and Canada are obtained through the merchants of those countries. I am, moreover, to point out that the gold-mining industry finds it advantageous to obtain practically all its requirements through South African merchants, and millions of pounds per annum are thus circulated in this country.

"'The Chamber considers that the best interests of the country would be served if the commercial department of the High Commissioner's Office were abolished so far as the purchasing of requirements and placing of orders is concerned, but it recognises that arrangements for the inspection of material should be retained.

"'As to the effects of such a change, I am to point out that if the Government obtains its supplies through South African merchants the very keen competition which exists here would, without doubt, ensure prices being quoted which would compare favourably with any quotations which the High Commissioner's Office would obtain, when allowance is made for the saving of present expenses in connection therewith. Merchants and agents here are prepared to supply from stocks or to indent for all requirements; and to be held responsible, right up to the time of delivery, for goods being of the specified quality and description, as well as for the fulfilment of specifications. The Government would have responsible persons on the spot on whom they could place the onus of any delays or defaults that might arise. It is contended that some charges now paid could thus be saved to the Government, and it is evident that any trade profits and necessary expenditure in connection with contracts would then be circulated in this country, and the benefit would accrue to the general community.'"

Thus, it is seen that the Manchester Chamber of Commerce's proposal introduces a somewhat delicate question of Colonial policy.

I might inform the Commission that, in order that British firms might be in possession of an official statement as to the precise conditions governing the purchase of Government supplies in South Africa, a memorandum setting out the system of purchases was submitted by me to the Board of Trade, and the particulars embodied in this memorandum were subsequently printed and widely distributed for the guidance of British firms in the United Kingdom. This document is in the nature of a "Confidential" paper, but a copy will be submitted privately for the information of the Commission if it so desires.

If asked how manufacturers could best meet the difficulties of the position as pointed out by the Manchester Chamber of Commerce, I would at once say that they can secure all the opportunities they desire and obtain equal treatment with South African firms by the simple means of acquiring properly constituted local representation. The reason why South African firms are increasingly able to tender for local requirements is due principally to the fact that they are acting more and more as the direct agents of oversea manufacturing concerns in addition to conducting their own business as ordinary merchants.

Experience in this market proves to my satisfaction that orders lost to oversea firms are in most cases due to the absence of efficient local representation. To my mind properly constituted representation is the fundamental basis of successful trading. There is no doubt that the pressure of foreign competition and the representation of foreign firms in oversea markets is forcing British manufacturers, more and more, to go beyond the legitimate fields of manufacturing by systematically aiding in the merchanting of their own goods in the markets of the world.

Manufacturers who still wait for orders to reach them through London buying houses or direct from oversea markets are working on wrong lines. Their representatives must be in the oversea markets to create the demand for their goods, to be continually on the outlook for new openings for trade, for changes of pattern or design, changes of fashion, and, above all, to obtain details of prices, and, if necessary, samples of their competitors' goods.

The form which representation should take varies according to the character of the goods and the demand that exists. A memorandum comprehensively dealing with this question was specially prepared by me as a guide to British firms dealing with this market, and a copy of this memorandum might also be "put in" for the confidential information of the Commission should it so desire.

It is upon this question of oversea representation that I have largely concentrated my efforts to promote British trade in South Africa.

2834. Some years ago this was brought before the Shipping Rings Commission in Johannesburg.—Yes. That touches the question of direct trading. In regard to this, while I personally would, of course, like to see the present system of placing orders in London continued wherever possible, one has to make allowance for those who claim that South African merchants should be given equal opportunity, and I think, therefore, it is of great importance that British firms should take steps to overcome the disadvantage of not being on the spot to tender. The best way to attain that purpose is to place their interests in the keeping of some local firm, which would tender on their behalf.

2835. It comes to this, that you do not think it is enough even if you cable when there is short notice to tender?—No, because the manufacturer does not see the specification, drawings, and other necessary details.

2836. So the big firm should have its agents?—Yes. Firms that want to do a permanent business should take means to get local representation.

2837. You have also a note as to the Commercial Information Bureau which the Royal Colonial Institute seems to be setting up, somewhat on the lines of what we have in London and you have here?—Yes. Mr. Jebb, giving evidence in London on behalf of the Royal Colonial Institute (page 93 of Cd. 6517), put in the following statement:—

"The Committee" (of the Royal Colonial Institute) "assume that, in accordance with the resolution as originally drafted by the Canadian Government, and accepted subject to Mr. Harcourt's proviso, the Commissioners will embody in their report a compendium of information respecting the natural resources, trade, &c., of the Dominions. The Committee feel, however, that for all large purposes of State policy in connection with Empire trade, sufficient information is already provided by the various reports which are made from time to time—on the one hand by or for the Departments of the Dominion Governments, and, on the other hand, by the British Trade Commissioners resident in the Dominions." Having given expression to the above views, Mr. Jebb, on behalf of the Trade and Industry Committee of the Royal Colonial Institute, dealt with other matters having a direct bearing on the need for Imperial co-operation and centralisation, particularly with regard to the establishment of an Empire-development Fund and Board, and it is interesting to note that, in cross-examination, Mr. Jebb incidentally admitted that, in his opinion, there is a disadvantage in multiplying bodies unnecessarily.

It would appear, from the above remarks, that the governing body of the Royal Colonial Institute considered that, on the one hand, the Board of Trade, and, on the other, the Dominion Governments, maintained sufficiently well-organised Departments for providing the necessary information in connection with Empire trade.

The above evidence is, therefore, difficult to reconcile with the recent action of the Institute in setting up a Commercial Information Bureau, whose activities, in effect, will be to compete with the official organisation of the Board of Trade. Even if this is not the intention of the Royal Colonial Institute, there can be no doubt that the letter addressed by the Institute to public bodies in the Oversea Dominions is open to that construction, or, in other words, its contents cast a reflection on the efficiency of the

existing official organisation. One paragraph of the letter referred to reads as follows:—

"It is felt that, owing to the keen commercial rivalry of foreign nations, and their extensive Consular service, which they use commercially in order to assist their own manufacturers to make the fullest use of opportunities for trade in the British Empire, some special effort should be made to give our own manufacturers an equal service of trade information."

Now in order that the similarity of the aims of the Information Bureau which it is thus intended to establish may be compared with the general scope of the work of the Commercial Intelligence Branch of the Board of Trade, I submit, for the information of the Commission, the following copy of the letter addressed by the Secretary of the Royal Colonial Institute to the Chamber of Commerce at Cape Town and at other centres:—

"I am directed by the Council to enclose a copy of a pamphlet issued by the Trade and Industry Committee of this Institute, and to say that, in view of the importance of the subjects outlined in the pamphlet, they would be pleased if you would place their subjoined request before your Council.

"It is felt that, owing to the keen commercial rivalry of foreign nations, and their extensive Consular service, which they use commercially in order to assist their own manufacturers to make the fullest use of opportunities for trade in the British Empire, some special effort should be made to give our own manufacturers an equal service of trade information.

"This was one consideration which induced the Council of the Institute to establish an Information Bureau with the purposes in view hereunder:—

> "To deal with all enquiries made personally or by letter to the Institute, and also to distribute information concerning the resources and opportunities for trade and Imperial expansion which now exist.

"In order to carry out these objects I now wish to enquire whether your Council would be prepared to furnish periodically to the Institute, addressed to the 'Information Bureau,' the following:—

"(*a*) Published literature dealing with your city, its activities, and its possibilities, both from a commercial and industrial view-point, and also what is considered its advantages as a visiting place for Empire travellers.

"(*b*) The earliest notification possible of those of your Council's resolutions entailing expenditure for works for which tenders might be invited either locally or through a London representative.

"(*c*) As a corollary of (*b*) such tender forms and specifications of such works as would enable the Institute to place before United Kingdom manufacturers your city's specified requirements.

"(*d*) Any other information which your Council may care to furnish—always with the view to the increase of inter-Empire trade.

"Regarding (*c*) arrangements are being made to communicate immediately to British manufacturers in the trade concerned the particulars thus received.

"My Council will greatly appreciate your active interest in this matter, and I am to add that this Bureau will always be pleased to give you any information that you may desire concerning market and other conditions in the United Kingdom."

A copy of the above letter was duly referred to me by the Secretary of the Capetown Chamber of Commerce, who wrote as follows:—

"I am directed to send you the enclosed copy of a letter received from the Royal Colonial Institute, asking for certain information and literature relating to the trade, industries and attractions of this district of South Africa.

"This Chamber is of opinion that the requests therein contained can be suitably dealt with by you, and I am therefore instructed to send a copy of the communication to you, for your consideration."

In considering the action of those responsible for this new departure on the part of the Royal Colonial Institute, it may, of course, be claimed that a duplication of effort to promote Imperial trade is a good thing, and should be encouraged. But, on the contrary, I think that experience will show that the establishment of an independent Bureau which seeks the co-operation of public bodies and institutions in Dominion markets in matters which are already engaging their attention on behalf of the Board of Trade is likely to have a directly contrary effect. To ask the same bodies to supply identical information to two recipients for the same object is, surely, an unnecessary duplication of work.

Apart from these considerations, it is obvious that the more that manufacturers in the home market are familiarised with the work of the Commercial Intelligence Branch of the Board of Trade, and the more that Department is recognised as the fountain-source of all information affecting Empire trade, the wider will its influence become, and the greater use will it be able to make of the material supplied to it by its oversea officers.

On the other hand, it cannot be denied, I think, that the influence exercised in the past by the Royal Colonial Institute with regard to Empire matters has lain in its missionary work, *i.e.*, in its efforts to inculcate and spread the doctrine of Imperialism, and by urging the need for concerted action as well as by supporting official endeavour in that direction.

It is because I believe that the policy of setting up the independent Institution, now suggested, is calculated to confuse, rather than to assist, British manufacturers, and generally to weaken rather than to strengthen official endeavour in the furtherance of British trade interests in the Dominions, that I venture to bring this matter to the notice of the Commission.

2838. Have you anything to add to this note?—I think it is a very great pity that they should have taken this step. I have quoted a letter that they have addressed to public bodies in the Union, which can only be interpreted as a reflection on the efficiency of the Board of Trade organisation. I do not believe it possible that the Royal Colonial Institute (not being an official body) can set up an organisation that would in any sense be more efficient, and the fact that they are competing in a certain way with the Board of Trade must lead to confusion and, I think, to bad results.

2839. You mean that if these Chambers of Commerce are approached by two different bodies for the same information they will get rather tired?—Yes, it will cause great annoyance.

2840. And the Board of Trade Intelligence Branch may suffer?—Yes, because in the interests of British trade the Board of Trade has a system whereby valuable information only reaches the hands of purely British manufacturers. There are a great number of Continental firms which have their head offices in London, and if the information is imparted to them they at once communicate it to their works. I may be quite wrong, but I doubt whether the Royal Colonial Institute can or will discriminate to the extent that the Board of Trade has found it necessary to do in the interests of British manufacturers.

2841. Your immediate criticism is that the bodies out here do not like the trouble of being applied to by a second body?—I interpret it as being so, in view of the fact that the Cape Town Chamber of Commerce immediately passed this letter over to me and said that they did so because the matter could no doubt be suitably dealt with by me. They assumed that the Trade Commissioner was the proper person to keep British manufacturers posted. May I refer to one paragraph of the letter which the Royal Colonial Institute addressed to public bodies? It reads as follows:—"It is felt that, owing to the keen commercial rivalry of foreign nations, and their extensive Consular service, which they use to assist their own manufacturers, some special effort should be made to give our own manufacturers an equal service of trade information." That can have only one interpretation.

2842. Will you read us the note you have prepared as to the systematic collection of samples of foreign goods?—Mr. E. Wright, Secretary of the Birmingham Chamber of Commerce, giving evidence in London (page 286 of [Cd. 6517]), recommended on behalf of the Chamber "That there should be a regular and systematic collection of samples of goods which are sold in the Colonies in competition with similar

articles of British origin; that these samples should be accompanied by the fullest details as to

Wholesale and retail prices,
Customs duties,
Freight rates, &c.,

and that such samples should systematically be exhibited in the Chamber of Commerce of the principal industrial centres of the country." The policy advocated above has now definitely been adopted by the Board of Trade, as was recently announced in the Board of Trade Journal in connection with a collection of samples of Continental earthenware and glassware forwarded from the South African market. The official notice in the Journal stated that ". . . the collection and exhibition of these samples (of earthenware and glassware) by the Board of Trade is *part of a general policy* which was recently inaugurated of placing before manufacturers actual samples of foreign goods which compete with United Kingdom goods in the Oversea Dominions, or the like of which, made in the United Kingdom, have not hitherto been sold in these Dominions, with full details as to prices, freights, Customs duties, &c. Results show that these exhibitions have aroused considerable interest on the part of manufacturers here, and have also been of much practical value."

I may state that, as far as the South African market is concerned, the matter of forwarding samples is not a new departure, though it was not till 1912 that a comprehensive collection covering a specific trade was authorized. The instructions originally issued to Trade Commissioners dealt with this subject, and as far back as the year 1909 I brought samples of foreign goods to the notice of British firms, with encouraging results. The practice has been continued ever since.

During 1913 three lots of samples were furnished to the Board of Trade as part of the general policy above referred to, and I am now engaged in forwarding a further range of samples of certain Continental goods which have recently been introduced successfully to this market. A Commissioner's efforts in this connection, however, are dependent to a large extent on the amount of funds at his disposal.

2843. Please go on to the notes you have drawn up as to foreign competition in enamelled ware and misrepresentation.—On the question of foreign competition I noticed that in the course of the evidence given by Mr. S. Machin on behalf of the London Chamber of Commerce, a good deal of discussion centred on the question whether certain enamelled ware, included in the exhibit of samples of foreign goods, was of *British* or of *German* origin, and the general question of British *versus* foreign competition in this line was discussed by Mr. James Park in New Zealand.

On page 3 of the London evidence [Cd. 6517], Mr. Machin stated:—

"One advantage of these Exhibitions" (*i.e.*, of samples of competing foreign goods) "is that they afford a means of detecting goods which are sold as *British* to Colonial customers, when actually they are of foreign origin. For example, a quantity of the enamelware displayed at the recent exhibition was alleged to be partly of British manufacture, that is to say, the steel bases were known to have been made in Great Britain, the enamelling and finishing having been done in Germany."

Later (page 8), Mr. Machin was cross-examined by Mr. Lorimer, and is reported as follows:—

"The bases of this manufacture were steel-plates. Do you happen to know whether it was simply the steel-plates that were made in England and whether the work of shaping them into the form of the enamelled ware was done in Germany, or whether it was simply the enamelling that was done in Germany?"—"I could not answer that question conclusively, but I am informed that only the enamelling was done in Germany, that the steel and the shaping of the steel of the bases was done in England, and the enamelling only was done in Germany."

"That involved sending the shaped articles to Germany to be enamelled there, and then having them sent back?"—"They were sent to the Colonies. These are samples collected in the Colonies of *German goods* . . . (They were) not sent back to England; they were collected by the (British Trade) Commissioner and sent to us as an example of *German* manufacture."

For further evidence *re* enamelware *see* page 109 of Evidence in New Zealand [Cd. 7170], given by Mr. James Park, cross-questioned by Mr. Lorimer and other members of the Commission:—

"With regard to enamelled hollow-ware, such as basins, pie-dishes, and that kind of thing, we were told in London that while the goods were made in England they were sent to Germany for enamelling. Is that done in your case?"—"No. I think that has been done away with. The Welsh Tin and Plate Co. (*sic*) have imported a number of German enamellers to do their work."

"So that the enamelling is completed in Great Britain now?"—"Yes."

"So that you are comparing the prices of enamelled goods finished in Great Britain with the prices of the same articles in Germany?"—"Yes."

"And the Germans are cheaper, apart from freights?"—"The Germans are very much lower. They are about equal if you take into consideration the difference in the duty. But then we get a much quicker delivery from Germany. They can turn out their stuff so much more promptly. Not many months ago, we transferred orders from the Welsh Company to Germany, because the delivery of the Welsh Company was not quick enough for us."

"Where were the goods being made—in Wales?"—"In Llanelly." . . . .

"It is much more serious to learn that the prices are so much lower in Germany, so much so that it requires the whole of the duty to put them on an equal footing?"—"Yes. I should mention that the quality of the German enamelling is superior to the Welsh. The enamelling is not so brittle." &c., &c.

The above evidence embodies several important statements which, if allowed to pass unnoticed, are calculated to give rise to misconceptions and to be prejudicial to British trade interests.

In the first place, I do not follow Mr. Machin's argument, apropos of the recent Foreign Hardware Exhibition, when he says:—

". . . One advantage of these exhibitions is that they afford a means of detecting goods which are sold as 'British' to Colonial customers, when actually they are of foreign origin."

The goods in question were a collection of samples of foreign-made articles sold in South Africa as such, but not as "British." It therefore would seem to me that Mr. Machin's evidence was wrongly reported, especially as he admitted in a later portion of his evidence that—

". . . they were collected by the Trade Commissioner and sent to us as an example of German manufacture."

It is possible, of course, that the allegation made by some person in England, who inspected the samples, to the effect that some article or other was partly of British make, might have been interpreted as an allegation made by the *seller* in South Africa. In any case I think it unnecessary for the Commission to attach any special importance to this question of alleged misrepresentation. The collection of enamelled ware happened to be a very comprehensive one, and it is possible that a particular dish or other article of a British firm was included by accident, though I am not prepared to admit this to be the case.

There is certainly no justification for the supposition that British-made enamelled ware was being sold in the South African market as foreign, or *vice versâ*.

On the general question of British competition in these goods I should like to state, for the information of the Commission, that a great change has come over the position during the last year or two, and I entertain high hopes for the future success of the British enamelled-ware trade in South Africa, and elsewhere.

I may state that while I deemed it advisable, when making up the collection of foreign hardware samples, two years ago, to make a special feature of the

enamelled ware section of these samples, in order to emphasise the strong footing which Continental firms had acquired in this market, it is obvious to me that British trade is now steadily gaining ground, and that the British firm to whom reference has been made has nothing to learn from the Continent, either in regard to the manufacturing of their goods or the merchanting of these goods in oversea markets.

To-day the above firm is securing big contracts in South Africa, in spite of the keenest German competition.

In this connection it may be of interest to know that only last week one of the principal wholesale merchant houses in this country informed me that a contract had just been concluded by them with the firm in question for enamelled ware.

The merchants referred to, who are very keen buyers indeed, considered that the quality and prices of these British goods were better than any offered by Continental firms in connection with the placing of their contract. Equally satisfactory and encouraging reports have been received by me from merchants in other parts of South Africa, and I find from enquiries made amongst merchants that there is no foundation for the statement that British enamelling is more brittle than the German. The quality generally of the British article is regarded as superior, owing largely to the system of export adopted on the Continent.

It is customary for Continental makers to dispose of the entire supply of their "rejects" (*i.e.*, other than first quality goods) to factors. These factors in their turn (and there are 16 or more of such firms connected with this market) sort out the "rejects" into firsts, seconds, and thirds, and it is this system which has done so much to lower the standard of quality and price of enamelled ware in the South African market.

In spite of this system, and notwithstanding the fact that the British makers refrain from exporting these low grades, they are steadily expanding their trade and building up a reputation for a good standard quality of British enamelled ware at a competitive price.

As regards the question of late deliveries, it is a fact that some few years ago the Company had unfortunate experiences in this matter, owing to the acceptance of large orders in anticipation of extensive additions to their works which were to have been completed within a given time. Delay in this connection, however, resulted in the non-execution of deliveries to specified dates, but the trouble has now been entirely overcome and the Company are in a position to execute all ordinary specifications within a month of the receipt of orders.

Lastly, I wish to remove all doubts that may exist as to the question raised with reference to British goods being finished in Germany.

Every article supplied by the firm of United Kingdom manufacturers to which reference has been made is of British manufacture *throughout*, and the firm guarantees this to be the case. Their works include sheet rolling, stamping, tinning, galvanizing and enamelling works, and, with the extensive plant recently laid down, is said to be the most up-to-date factory of its kind in the world.

2844. Then as to misrepresentation?—The statements I should like to refer to are

(1) That by Mr. Stanley Machin, Vice-President of the London Chamber of Commerce, who said (*p.* 2 of [Cd. 6517]):—

"That the Government be urged to make provision, through the Board of Trade, for watching for cases of fraudulent misrepresentation, and, where necessary, taking action under existing law, which, in the opinion of the Committee, is adequate in most cases if effectively set in motion";

and (2) that by Mr. H. L. Symonds (*p.* 61 *of* [Cd. 6517]), who was asked by Mr. Campbell:—

"Do you think . . . the extension of the business of Trade Commissioners would assist manufacturers in the detection of these trade misrepresentations abroad?"—

and replied:—

"I do not think it would come directly within the scope of the Trade Commissioners to go round, either as *agents provocateur*, or as detectives . . . but the more we can get information on all subjects I think, the better, and the more closely we can be brought together."

In view of the above and other questions relating to the employment of the services of Trade Commissioners in connection with the detection of cases of misrepresentation of goods or the piracy of trade marks, I think it important to explain to the Commission that every effort is already made in this market to safeguard British interests in this matter.

Cases affecting various sections of trade have come to my notice, and the facts have been immediately placed before the Customs authorities, either in the Union of South Africa, or in Rhodesia, as circumstances necessitated.

In each case the action taken by the authorities has adequately met the position. The Customs authorities themselves exercise every vigilance in detecting attempts to misrepresent goods or infringe trade marks, and I am of opinion that this vigilance is partly responsible for the comparative absence of attempts to deceive.

During my experience in this market I have had to take active steps in regard to four cases of misrepresentation. Two cases were successfully disposed of by the authorities threatening the confiscation of the goods, while, unfortunately, the other two attempts could not be brought within the four corners of the law.

2845. Do you take any action in cases of piracy?—Yes. I at once report such cases to the Customs authorities.

2846. They very often play English plays here: do you report home when such a play is given here so that the royalties may be claimed?—I am afraid I have not gone into that. In regard to "Merchandise" I have brought cases to the notice of the Union Customs authorities, and they have taken the necessary action. I work through the Government here and then report to the Board of Trade.

2847. You have not been asked by the Board of Trade to take any notice of what English plays are played?—No.

2848. You also have some information to give us as to the administration of the Food and Drugs Act?—I should like to refer to a statement by Mr. E. J. Boake (*p.* 64 of evidence in London [Cd. 6517]), who said:—

"Our agents . . . have been much harassed by the interpretations of the inspectors under the Food and Drugs Act, in the carrying out of certain regulations . . ."

In connection with the above statement I should like to say that experience in this market has shewn that Trade Commissioners can often render material assistance to British exporters in matters connected with the administration of local regulations affecting the standards of purity of foodstuffs, &c., provided, of course, that manufacturers will report the facts to the Commissioners, and provided, also, that these facts present a reasonably good case for submission to the authorities.

In four distinct cases brought to my notice difficulties have been overcome by the representations made to the local authorities concerned. In two of these cases the shipment of consignments was held up, owing to the operation of the regulations. Representations were made, concessions obtained, and the results reported by cable. Such action obviated considerable delay and consequent loss to the exporters interested.

The above statement is only made in view of the above evidence and in order that the Commission may appreciate some of the directions in which Trade Commissioners can usefully serve the interests of British exporters in a Dominion market.

2849. What have you to say as to commercial travellers' licences?—I should like to refer to a statement by Mr. H. L. Symonds (*p.* 63 of London evidence [Cd. 6517]). He said:—

"I was told the other day that, when these licences are issued in Rhodesia to British subjects, these subjects are described (technically only, I suppose) as "foreigners," and I think that it is a constant source of irritation to British commercial travellers who go out to Rhodesia. If that could possibly be modified, it would be an advantage."

It may be of interest to the Commission to know that the term "agent of foreign firm" is used both in the Union of South Africa and in Rhodesia, as applying to the representatives of "oversea" firms of British or of foreign domicile, who take out licences for the purposes of trading.

Having been aware of the objection entertained by British firms and their agents in this market to the term "foreign," I made representations to the Union authorities some months ago, and I am authorised to state that a more acceptable and more apposite term will be substituted in the legislation to be introduced to Parliament dealing with the revision of licence fees payable in the Union of South Africa.

An opportunity will be taken of making similar representations to the Rhodesian authorities, and I have no doubt that the matter will be rectified in that territory as well.

Mr. Chairman, I should like to be allowed to refer at this stage to a remark that Mr. Pickstone made the other day*, in complaining that they had no information regarding the fluctuations in English prices of fruit. He said that he had seen "The Board of Trade Journal," which was of no value to them on that matter. I think it is necessary to point out that the Journal in question does not aim at supplying information to oversea people interested in industries in these oversea markets. The idea is to collect information in the oversea market and circularise it, for the benefit of British manufacturers, in the United Kingdom. It does not aim at the object suggested by your witness.

2850. Would you like it to aim at it?—No, I think it is the function of the Union Trades Commissioner in London, and, in any case, such information would be useless unless it were cabled.

2851. Are there any other points?—May I draw attention, in justice to the Union, to a return which appears in the Second Interim Report† of the Commission which goes to show the value of the Australian and New Zealand markets for trade purposes—that is, the value of the trade per head of population. I think it is only fair to the Union that I should draw attention to two points in this connection. In the first place, in the Australian statistics they add 10 per cent. to the home value as an "overhead" charge to cover freight, insurance, and so on. In South Africa we make no addition to the home cost, and there is no allowance made for freight. That makes, as I have said, a difference of 10 per cent. And then in Australia you are dealing with a European population; but here the native population is overwhelming, and for economic purposes it is necessary to arrive at the equivalent value of these natives to the European population. Opinions differ as to the number of natives that should be taken. Some take six, and others take 10, natives as the equivalent of one European. But if one takes only four natives as the equivalent in purchasing-power of one European, the Union trade per head shows up better than any other country contained in the table to which I have drawn attention.

2852. **(Mr. Lorimer.)** I find this report of yours so complete that, if I ask a few questions, it is in order to satisfy myself that I have understood your points. On page 5, with reference to the table on that page, I want to ask if those figures showing large increases between 1904 and 1911 bear any definite relation to the increased amount of land brought into use for the production of wool, mohair, hides and skins?—Yes, I think that is the case. There has been a great development in the agricultural industry during the period covered by the Census.

2853. Is the original land becoming more productive, or have you a similar proportion of products in both quantities of land? Have you the same proportion of products in 1911 to the land in cultivation or use that you had in 1904?—I think it applies in both ways: there is no doubt at all that the South African farmer is farming on more up-to-date lines and putting more fertilisers into the land and so increasing its productivity. In addition to that, I am quite sure that there has been an increase in the acreage under cultivation.

2854. You have got it both ways?—Yes.

2855. And the same thing applies to tea and sugar on page 6?—I do not know whether those industries are affected so much by fertilization and so on. I think there it is a question of increased acreage under cultivation.

2856. Then, if you will turn to page 7, and look at the table there on "Advances by Banks" I want to know whether they are cumulative, or do those figures represent, on the 31st December of each year, the difference between the amount advanced and the amount repaid?—They are cumulative. In 1908 it was 21,000,000*l.*

2857. An additional 21,000,000*l.* in 1909, and an additional 25,000,000*l.* in 1910?—No; it is merely a comparison of figures.

2858. That is the actual amount at the end of each year?—Yes.

2859. And that is being repaid all the time?—Yes.

2860. So that represents the difference between the amount advanced and the amount repaid at the end of each year?—Yes.

2861. If you look at the penultimate paragraph of that page, will you kindly explain what is the difference between the Government, the Agricultural, and the Land Banks?—They are one and the same thing. Parliament provides a certain sum for the purpose of assisting farmers, either for farm improvements or the purchase of stock or land. In the past, farmers have been very much in the hands of moneylenders, who bleed them by exorbitant rates, and this is a worthy object on the part of the Government to release them, and to assist farmers who are anxious to develop the amount of land under cultivation and to provide for farm improvements in other ways.

2862. But, I thought that, as you had the three names, perhaps they were different organisations for different purposes and differently controlled and managed?—No, they are referred to in that form simply to show that the bank advances money for agricultural development as well as for the purchase of land.

2863. Are these banks provided with capital by advances from the Government?—These are advances made from Government funds. I do not know whether their capital is only voted, or is simply a loan raised which is renewed when required.

2864. On page 8—with respect to your note at the foot of these tables—the value of merchandise is regarded as being the current value. Does that include freight?—No, it is the home cost, and includes cost of packages and packing, but not agents' commission when under five per cent. I think it might be assumed that these figures represent purely home value.

2865. Your table near the bottom of page 9 shows a very satisfactory increase in non-mineral exports from year to year, but there was a falling off in 1911; was that in any way connected with the drought? I thought the drought was in 1912?—The drought was in 1912, and we had another in 1913. I cannot, at the moment, and without examining the detailed figures, give an explanation of that falling off. I think it was in maize. I will give you figures in a moment or two.*

2866. In the same connection, you show that 1912 showed a very unusual increase. Perhaps it may have been accidental in respect of the dates. Part of the statement for 1911 may have got into 1912. Well, if you turn to page 10, I was struck with the increase of imports of electrical material in 1910 and 1911, until I found your explanation. That is on account of the changes at the mines?—Yes. The conversion of steam to electric drive.

2867. Now, in respect to the table on page 11, there is a steady increase of the imports of food and other things. I suppose there is a steady increase of the population year by year; do you know?—No, I think the country has more to spend.

2868. Not only a larger population but they spend more freely?—Yes; far more.

2869. Now, at the bottom of page 13, where you refer to the drop in the imports of machinery and mining material, you say there will be a pause before further progress is made, and that there will probably be some delay in extensions on account of the higher rates in the money markets throughout the world.

* See pages 309 and 310 of [Cd. 7706]. †[Cd. 7210].

* See the answer to Q. 2870.

That difficulty has now been removed. But is that any indication of further expenditure on the mines?—That is a very difficult question to answer. Capital is such a nervous quantity that political and other considerations have to be taken into account.

2870. Turn to page 14: There is an interesting point in the paragraph quoted from the Chamber of Mines' Report. I think we had the impression that the grade of ore was becoming lower; but it says that the recovery per ton milled has increased from 27*s.* 11*d.* in 1911 to 29*s.* in 1912, due to improvement in the grade?—I prefer that question to be answered by someone in the mining industry; I have simply given the facts. May I refer to those non-mineral export figures again, which we mentioned just now. It was as I supposed—between the two years 1910 and 1911—there was a drop of 144,000*l.*, which was made up in this way:—Maize alone dropped 271,000*l.* The drought, therefore, was responsible for the decline. Sugar also shows a drop of 33,000*l.*

2871. In regard to page 15: In describing there the very large amounts of new machinery which have been provided in the different power stations, you speak of compressors. Is drilling done by compressed air on the mines?—Entirely, I understand.

2872. The rest of page 15 of your Report is devoted to an explanation as to why so much of these large supplies have been obtained from foreign sources; I think the explanation is timely and valuable, and I hope it will be carefully considered by British manufacturers. A good many of the facts that you mention are deserving of the most careful consideration on the part of home producers?—May I just say that in regard to electrical machinery, I have recently had the most encouraging reports from the mining engineers. Men of high standing on the Rand, speaking as to the position now held by British firms, have informed me that great improvements have taken place, that we are now well holding our own.

2873. These plants were of a power and magnitude such as they had had no experience of at home, and they are now facing the fact and dealing with it?—Yes, in a very satisfactory way.

2874. Turning to page 20: You give us first of all a list of trades in which our position is supreme, and then follows another list in which we are holding our own in keen competition. Do you know if there is any slackness on the part of British manufacturers or anyone to show adaptability to the requirements of the market?—Of course, that answer can only be dealt with in a general sense. Some firms excel and far surpass anything that their foreign competitors can put up, and others, again, are not as progressive as some foreign firms; but, answering the question in a general way, I am of opinion that British firms are thoroughly alive to the importance of the Union market, and are putting forward every effort to capture the trade. I could give some very interesting cases (but one rather hesitates to refer to them) where the Board of Trade has initiated action and, as a result of the vigorous way in which British firms concerned have taken matters up, we have recovered trade which was formerly in the hands of our foreign rivals. I prefer not to mention particular lines, but we have definite cases.

2875. It is gratifying to hear that, because we have had people saying that British manufacturers have said: "This is what we have made all along, and if you don't like it you can go elsewhere"?—I think that is a relic of the past, and it has become second nature with some people to refer to things in that indefinite way. But such people are becoming fewer every day.

2876. Now, on page 21, in regard to fencing material, I know that the coarser kinds of wire are made in Germany and the United States, and the finer kinds of wire are made more largely in Great Britain; but I wanted to put a question about the fencing standards which you say Belgium supplies: Do you know if these are made of cast iron?—I think they are made of scrap iron, and, with cheap labour, Belgium is able to produce fencing standards of relatively low quality at a price which makes it not worth while for British manufacturers to give attention to the production of a competitive line. We have had our attention called to this particular trade which the foreigner has been able to monopolise, but if you go into it you will find that there is not sufficient profit in it. We do make standards, but of a better quality. A certain British firm has, however, within the last two years produced a patent fencing "dropper" which, I think, is going to take the place, and is largely taking the place to-day, of the Belgian dropper.

2877. The fencing standards are to carry the wire?—Yes.

2878. They could be made more cheaply here than imported? Well, an iron industry has been started in South Africa, and, naturally, that industry will give its attention in the first place to all the commoner lines such as this. We have lots of scrap metal in this country.

2879. On page 22 you have the percentages of the total trade. While the United Kingdom holds its own, you point out that there has been a decrease of Australian imports, and you account for that by the falling off in the imports of meat and other farm produce; but while Australia is 1 per cent. less in 1912 than in 1911, New Zealand shipments have doubled in the same year, and yet they are the same articles, I should imagine?—New Zealand trade went up by reason of the increased importations of butter, which were large, as the result of the drought in South Africa. These percentage fluctuations, while being open to different interpretations, are of no great significance. I think that it is misleading simply to compare one year with another.

2880. Are the German and other Consular services largely devoted to the extension and pushing of trade? I suppose the number of people employed is larger than your staff?—Yes, and the amount of money spent is very much larger.

2881. Do you think they get an adequate return as compared to your own?—I could not say, I know that they are very active and we are trying to be equally so.

2882. If you turn to page 31, the effect of the inclusion of Government Stores in the return of imports is to increase the United Kingdom proportion from 58·03 per cent. to 58·19 per cent., and British Possessions from 9·73 per cent. to 9·92 per cent. in 1912. All the foreign figures are less, with the exception of Belgium and Sweden; do you know why?—Sweden on account of timber, I should say. Belgium may be increasing in fencing standards or rails, and, possibly, iron sleepers.

2883. Turning to page 33: With respect to the exports of minerals: there is a falling off of 53,000*l.* in copper ore, and 89,000*l.* in smelted copper: is the production falling in copper?—No, it is increasing.

2884. This is an accidental reduction, then?—I think it is due to something in connection with railway construction to these new mines in the Northern Transvaal.

2884A. Now on page 40: you say: By the new arrangements entered into, "the advantages associated with the rebate system are perpetuated without the objectionable conditions being imposed." I was informed that pressure was being used to force shippers to sign a certain agreement?—There is an agreement in existence which shipping companies are requiring shippers to sign, but as this is so controversial a matter and *sub judice*, I think that by giving evidence on it I might prejudice my position as Trade Commissioner.

2885. I was assured by this man that he and many others, resenting this treatment, sent orders for goods to Germany?—That may be a temporary effect in respect of the lines which Germany can satisfy.

2885A. You tell us on page 42 that the principal remission of taxation effected since Union has been through the reduction of railway rates, which was estimated to amount to 1,336,500*l.* per annum. That is about eight per cent. of the Government's revenue. Has anything been said as to how that is made up?—As to how the reductions are distributed?

2886. No, but how the revenue is to be recouped for this reduction?—I think that is a matter of high politics, which will come up for consideration at the next session of the Union Parliament.

2887. On pages 46-47 there is an error in your figures. The railway surplus in 1910-11 is 278,433*l.*

and the deficit of the harbours was 203,041*l.*, leaving a surplus of 75,392*l.* for 1910-11, which is what you give us. In 1911-12 you have 618,904*l.* railway surplus with a harbour's deficit of 237,846*l.*, a difference of 381,058*l.* instead of 456,449*l.* as you put it?—Yes, I see. That is probably a printer's error.

2888. **(Mr. Bowring.)** You tell us that you have on your list the names of 1,400 manufacturing firms. How many are Colonial?—They are all British.

2889. Can you separate them from those manufacturing in the Dominions and at Home?—They do not take into account any Dominion manufacturing firms. In addition to the 1,400 British, I have had communication with a number of local firms, but the figures quoted do not cover the local firms, except when the local firms are requiring new machinery and so on, and we endeavour to put before them the interests of British manufacturers of such machinery.

2890. You do not interest yourself in the manufacturing concern, say, in Canada or Australia?—No, Canada has its own Trade Commissioner. Australia has a Commercial Agent here, who is not a whole-time officer, but divides his time between that and other things.

2891. You devote your attention entirely to the Home manufacturers?—Yes, entirely.

2892. With regard to your Trade Correspondents, you say you have about half a dozen in various parts of the Union?—Five.

2893. Do you find those sufficient for your purposes?—As a matter of fact, it happens to be a question that is under consideration by the Board of Trade at present; the question of the number of Trade Correspondents or the establishment of a branch office under the Trade Commissioner. I would, therefore, rather not go into the question of whether the number of Correspondents is sufficient.

2894. Now, in regard to land banks: how do these institutions work in regard to those who require advances? Is the land valued?—Yes, by an assessor, or valuator; but in regard to that, more information could be afforded by an officer of the Union Treasury. I only obtained the results for the purposes of my report. The operation of the bank itself I could not speak upon.

2895. These advances are fairly easily obtained?—Yes, on good security, but at present the bank does not possess sufficient funds. Whether further funds will be provided by Parliament I do not know.

2896. Are those sums voted by Parliament annually?—No, not annually. Before Union there was a Transvaal bank, a Free State bank, and a Natal bank. There was none in the Cape Province, and after Union the banks were amalgamated and run under one fund, I understand.

2897. **(Mr. Tatlow.)** In regard to page 42, in reference to the remission of railway rates since the Union, you say the sum is estimated to amount to 1,336,500*l.* per annum. Has not that remission been provided by the surplus revenue of the railways?—Of course, the result of reduction in railway rates would be to diminish the surplus.

2898. Is it not rather this, the revenue of the railways has been sufficient to pay the full interest on the capital in all these years and thus to remit taxation to that amount?—Yes, after providing interest, depreciation, and betterment the railways have a surplus.

2899. So that no burden upon the country is represented by those figures?—No, except that if there is a shortage in the general account of the country you have to provide funds from other sources and tax in some other form.

2900. But the taxation rates could not have been so reduced unless there had been that revenue from the railways?—No.

2901. And the estimate of 1,336,500*l.*—is that an estimate of what the annual amount of remission has been since Union? Is it the average per annum? That was a comparison with the year following the remission of the rate?—An estimate of the additional revenue that would have accrued had the reductions not been made. Of course, the general Exchequer is affected by this loss of revenue.

2902. In regard to the imports of general merchandise, you say the proportion of the United Kingdom for 1912 was 58·03 per cent., and then you said we were holding our own in regard to competitive imports. Is our proportion very much higher if confined to competitive imports?—Yes, if one eliminated raw material, such as timber, wheat, flour, and oil, &c., we would have a still larger percental share of South Africa's trade.

2903. The thing could be arrived at by eliminating the large things that England could not supply?—I have done that, but in making comparisons of this kind one is, of course, subject to criticism.

2904. **(Sir Alfred Bateman.)** Don't you think you could give us an estimate?—Yes, I will do so.*

2905. People can form their own ideas, of course, as to what should be eliminated?—Yes, I can only put forward an approximate result based on what I consider to be non-competitive imports.

2906. **(Mr. Tatlow.)** In regard to commercial travellers' licences, has that question now been fixed?—So far as the principle is concerned. In the past these licences were payable in the Cape Colony, the Transvaal, Natal, and the Free State. In the Cape the licence was 50*l.* with an additional 5*l.* for every additional firm represented. This was considered exorbitant and it has now been decided by the Union Government that there shall be one consolidated fee, and that fee, I understand, is to be very much below the total of the four licences prevailing before. A Bill has been drafted, and is ready to be put before the Union Parliament when the time is convenient.

2907. You said that you visit England biennially?—Yes.

2908. Is that sufficient?—Well, for personal reasons one would like to pay annual visits, of course, but for the purposes of the work I think a visit every two years is sufficient. If one spent too much time on the other side, one would run the risk, perhaps, of getting out of touch with the market.

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* *Note.*—The witness subsequently supplied the following letter:—

March 5th, 1914.

SIR,

WITH regard to the request of the Commission, as referred to in your letter of the 3rd March, to be furnished with a statement showing the relative value of the trade of the United Kingdom and other countries, after eliminating the value of non-competitive imports, I beg to point out, as I did in my evidence, that it is a difficult matter to determine the nature of the imports which can be classed as non-competitive without exposing oneself to criticism.

This being the case, I have only included such imports as seem to me to be articles which the United Kingdom cannot produce. The articles which I propose to classify under this category are the following:—Calcium Carbide, Ghee, Coffee, Dholl, Wheat, Flour, Currants, Raisins, and Dates, Ground-nuts, Beef and Mutton (fresh), Rice and Paddy, Brandy and Rum, Wines, Nitrates, Motor Spirits (Petrol), Paraffin Oil, Palm Kernels and Palm Oils, Tea, Sugar, Quicksilver, Unmanufactured Tobacco, Unmanufactured and Planed and Grooved Timber, Coir Fibre, Resin and Rosin, Turpentine, and Unmanufactured Zinc.

After deducting the value of imports in respect of each of the above items, and basing my calculations on the balance, I find then that the percental proportion of the United Kingdom trade to the total value of imports of "competitive" merchandise to South Africa is increased from 58·03 per cent. to 66·95 per cent.; a nett increase of 8·92 per cent. The same method of calculation applied to other British possessions and foreign countries produces the following results:—

British possessions show a decrease from 9·73 per cent. to 4·96 per cent., or nett decline of 4·77 per cent.; while foreign countries show a decrease from 32·24 per cent. to 28·09 per cent., or a decline of 4·15 per cent.

It is thus seen that the position of the United Kingdom is greatly improved by the elimination from the import figures of goods of a non-competitive character.

It may be of interest to the Commission to know that the value of the articles enumerated above and classed by me as non-competitive constitutes 13·71 per cent. of the total value of all merchandise imported from oversea into the Union.

I may add that there are a number of other articles of import which cannot, in my opinion, be produced in the United Kingdom, yet which I have not deemed it advisable to include in the above list, since the United Kingdom does participate in some way in the export of such goods to this market. As illustrating the class of goods to which I refer, I may mention such items as Jute and Hemp Bags, the principal export, of course, being from India, and amounting to £388,000; but in this case the United Kingdom was credited with the export of £34,000 to South Africa. The same objection applies to Paraffin Wax, and a number of similar items.

I am, &c.,
R. SOTHERN HOLLAND,
H.M. Trade Commissioner.

The Secretary,
Dominions Royal Commission,
Cape Town.

2909. With regard to South African imports having nothing added for freight and insurance, and Australia adding ten per cent., and therefore showing an unfair comparison; is not that an argument in favour of uniform statistics being adopted?—Yes, I think so.

2909A. Would you strongly favour a conference of Imperial statisticians on the matter?—Yes, I think it is a most desirable object to attain—uniformity of compilation—and I strongly favour a round table conference.

2910. **(Sir Jan Langerman.)** You say in your report that the drop in machinery and mining material for 1912 does not mean retrogression in the mining industry. I think you are quite right, because I find the imports of machinery during 1913 exceeded the imports of 1912 by £150,000, of which £100,000 alone is due to mining machinery?—Yes.

2911. But what proportion of those imports represents trade with the United Kingdom?—Do you mean for 1913?

2912. You can give it for 1912.—483,000*l.* out of 689,000*l.* That is about 70 per cent.

2913. Do you consider that satisfactory?—I think it is capable of increase; taking all things into account, I think 70 per cent. is a very good position considering the keenness of foreign competition.

2914. You lay stress on the keen competition with Germans and Americans?—Yes.

2915. Why is it that the English manufacturer has not been able to supplant them?—There are many factors. For instance, the question of representation. You may have a man representing an American firm who is more alive than the man representing British firms with the same class of machinery.

2916. Do you not find it your experience that the American and German traveller is much more alive to the business than the British traveller?—No. I cannot admit that. I thought so at one time, but I think to-day it is the reverse. I have come into contact with these men, and with the leading experienced engineers on the Rand, and although the latter at one time criticised our representation, they now speak very favourably on the subject. I find that, on the whole, it is satisfactory.

2917. Your personal experience also is that way. You know, however, doubtless, that there is a general impression that the British manufacturer is generally conservative, and, in regard to the manufacture of machinery in particular, as late as five years ago we had some alterations to make on our mine, and the British manufacturer absolutely refused to do the work?—Well, one does get those reports, it is true; but similar complaints are at times made in regard to our competitors. It is the question of the individuality of the firm. But in regard to your own experience at Randfontein, where you put down what is, I suppose, the biggest plant of its kind in the world, over 80 per cent. of that plant was, I think, British.

2918. Yes, but what we complain of is the time limit. They are always about two months behind the American and German. It is very important to have our machinery as quickly as possible, and that is where the home producer is lacking?—As a matter of fact, I think that that particular complaint has been encouraged recently, owing to the unfortunate industrial troubles in England—the coal and railway strike which affected deliveries very considerably.

2919. Every day's delay means a loss of thousands of pounds sometimes, and although we acknowledge the superiority of British workmanship, we are bound to give orders to German and American manufacturers at times in order to get the thing done quickly. Now, about the Chamber of Commerce in Johannesburg wanting orders placed locally, do you think that is a reasonable request?—Not entirely.

2920. Considering that the Government of the country is spending the taxpayer's money, should not they go to the cheapest market and avoid the middleman?—Yes, I agree with that, and on that ground I think the general policy will be decided. In reply to representations made by commercial bodies here I notice that Mr. Hoy—who represents the Railways—invariably contends that his Administration must take into account the question of the taxpayers' money, and get the goods in the cheapest and best market. But I think the policy of placing orders through local firms is to be regretted on some grounds; chiefly in cases where foreign firms are represented and British firms are not; and my object in bringing home to manufacturers the danger of ignoring this policy has been in order that the home manufacturer may appoint local representatives in the market and so compete on equal terms. In the case of machinery, local firms do represent the interests of the home manufacturer to a considerable extent.

2921. Another difficulty is the irresponsibility of these local agents. We cannot hold the manufacturer at home liable for demurrage. He always says "We have no responsibility" and the agent is perhaps not a substantial man?—It is rather an interesting fact that the local people advance the fact of their presence here as an argument for accepting responsibility. They say: "We are here and you can have recourse against us."

2922. It is the experience that whenever we want to go for the local agent he has nothing, and when we go for the manufacturer for being late he says: "We have no responsibility"?—Yet I had correspondence with an important South African municipality a short time ago about placing orders locally owing to the short time given for tendering. I said that it did not give the British manufacturer an opportunity of tendering. But one reason, and the principal reason, given me by the municipality for placing the order locally was that the local agents who received the order would assume responsibility for the goods in running order. They would take responsibility for the delivery and the running order of the plant before handing over to the Municipality.

2923. I am sure that if the British manufacturer were to accept the responsibility for demurrage he would get many orders that are at present placed with America and Germany?—I think the British manufacturer is quite alive to the point you have made, but I certainly will make a note of it.

2924. You mentioned Australia putting on 10 per cent. to the invoices. Do you know at all whether any correspondence has taken place with Australia about it?—In regard to the Union doing likewise?

2925. No, the 10 per cent. extra. They place 10 per cent. on the invoice, I understand?—I do not know whether there has been correspondence. May I explain? My purpose was to show that the comparisons in a particular table were, in my opinion, somewhat unfair to the Union. I pointed out two details—the native population and the 10 per cent. addition to the home value.

2926. **(Mr. Garnett.)** I should like to express my great appreciation for this report, which I have read and re-read several times with the greatest interest. I think the remarks you give in regard to British trade and explanations with regard to any displacement should be well read and pondered over by everyone engaged in trade in the United Kingdom. On page 5, after calling attention to the great excess of males over females, and the slow growth of the European population, you say there have been more departures than arrivals. Is there any special reason for that?—Well, of course, recently, as you are aware, we have had industrial troubles in this country, and the recent one is but a repetition of others that took place before. And I think they have contributed directly to a certain loss in the white population.

2927. Due to the labour unrest?—I think that is partly the reason.

2928. On page 7, referring to the want of a forecast, does not the Government make any estimate of the cereal crops?—No, it did not. It now proposes to organise a departmental collection of agricultural statistics.

2929. You call attention on page 12 to decreases in the imports of flour. Is milling increasing as an industry?—Yes, and in a few years I think there will be a considerable further increase. Of course, transportation facilities will have a direct bearing on the production of grain.

2930. On page 17, clause 9—Textiles, the last two paragraphs I am afraid I do not understand. You mention overstocking in 1911 as an explanation, and consequently less importation. Had our competitors

been very active in foreing their goods?—Yes, I followed them very closely. I know the firms interested, an Italian firm and a German firm particularly. Competition was keen, and these people offered attractive prices and the merchants were tempted to lay in large stocks.

2931. Reading your figures carefully, I think the Mother Country in textiles—wool and cotton—seems to hold her own exceedingly well. On page 27, the German firms are rather willing to adapt their goods to individual merchants' requirements and give prompt delivery. Are the complaints that the English manufacturers quote long delivery very numerous, because long delivery means that they are well under order? Or is it that they quote a date for delivery and are behind?—I cannot admit that they are unpunctual as a rule. Certain cases may come prominently to one's notice, and they are made a lot of, and leave a bad impression. The result of long delivery is to cause great inconvenience, but, generally speaking, the British delivery is as good as that of our rivals. Let me illustrate it by a particular recent case. Take enamel-ware, which was supposed not to be made in England but which I have explained is entirely of British manufacture. Not only did we do the finishing but guaranteed delivery within four weeks of receipt of order. Of course, there is room for improvement in all things, and complaints will always be made by someone or other. It is inevitable.

2932. You are no doubt aware that in England we have had exceedingly busy seasons lately and been packed up with orders. That has been a very good reason? — Yes, that was brought home to me very forcibly on the occasion of my last home tour.

2933. Now, if I may call attention to what, in my mind, is the outstanding feature of the whole report, it is that the United Kingdom, as distinct from the rest of the British Empire, has increased her exports since 1907 by 6½ millions against the foreign countries' or rest of the world's 4½ millions, and although its percentage of increase is smaller than that of our rivals, still the total of our trade is so enormous that it seems to me that the prospects of British trade and the hold that our trade has on the markets seem to be founded on a very secure basis?—Yes, I think so. It is my opinion, my deliberate opinion, that we hold a very good position. One has to take into account the natural advantages and resources of other countries in making comparisons of any manufactured articles, but we hold our ground very well. I think, however, that a Trade Commissioner can frequently act as a finger post to the manufacturer as to openings for trade, and can assist him very materially in finding a proper representative and in keeping him posted with conditions of trade and the nature and extent of foreign competition. Taking things generally, I think we hold a good position, and I think that the figures contained in my report justify that statement.

2934. **(Mr. Sinclair.)** You told us, as I understood, at the beginning of your evidence, that, in your opinion, the coloured worker was increasing faster than the white worker?—No, I do not think so.

2935. What is your opinion on that important subject?—In efficiency or in numbers?

2936. In numbers.—Of course, in regard to the population, my report said that the native population was increasing in a greater percentage than the European, but in regard to the coloured man, in regard to efficiency——

2937. No, as to numbers.—I won't venture a comparison, but undoubtedly in the Western Province of the Cape Colony the coloured man, as distinct from the black man, is more and more becoming a competitor with the European.

2938. And may we take it that work and the discipline involved in work are tending to improve his character as a worker?—Yes, I certainly think so.

2939. So that he is becoming stronger and stronger as a competitor with the white man?—Yes. I speak of the Western Province.

2940. Do you wish to express another view as to the other portions?—No.

2941. Is the statement that one sees in the papers, that a larger number of white workers is leaving the Dominion than is coming in, correct?—At present, yes.

2942. Do you know any special cause?—Yes, I think it is due to the industrial upheavals.

2943. Do you think that will correct itself when you get down to normal?—Yes.

2944. In answering Sir Alfred Bateman's question, you told him that in competitive trade the Mother Country was holding its own, and you added, "except in certain branches." Had you in mind any special directions in which you could assist us with suggestions?—I know branches of trade where I think we could improve our position very well, but I do not know whether you wish to press your point. We are taking action in certain branches of trade now, which I think might be improved, and we have introduced the matter to British manufacturers who are best situated for competing, and they are taking action. I would rather not mention what those lines are.

2945. We are considering how the trade of the Empire is to be extended and developed, and you prefer to put it in that general way, that in the directions where you have discovered a weakness you have taken such steps as suggested themselves to remove the weakness?—Yes. There are naturally many more lines where steps could be taken in future, but we are doing the most urgent first.

2946. You said that you were doing your best to make your office useful locally, and that in so doing it served the other purpose—that is, I take it, its main purpose—of advancing the interests of the British merchants?—Yes.

2947. That is generally the main scope of your office and department?—Yes. To further the interests of British manufacturers.

2948. Now, when you tell us that in trying to make your office useful, and of local assistance, and in giving information to some 1,400 firms, were those firms connected with, or do they represent, British firms?—Perhaps I did not make myself clear. I said that I was endeavouring to make the office useful locally, which would serve the double purpose. But the 1,400 firms were not local firms—they were British manufacturers.

2949. They were firms that are connected with or representatives of British firms?—No, it is the manufacturing firm itself in the United Kingdom. In a great proportion of cases they have local representatives of some kind or another.

2950. As regards the Imperial Trade Correspondents of which you have told us there are a number, you have one at Johannesburg, and there are others at other centres—do they correspond through you or direct?—They correspond direct in order to avoid delay. Copies of their letters are sent to me in order that I may keep in touch with what is passing between them and the Board of Trade on the other side.

2951. And do their letters go through the Board of Trade?—Yes.

2952. And are their communications and investigations made in the interests also of British firms?—Entirely.

2953. And yet I observe they are called "Imperial" Trade Correspondents?—Yes.

2954. Do you regard any Correspondent whose function is to care for the trade of the Mother Country only an "Imperial" Trade Correspondent?—No, they are British.

2955. They ought to be called "British" Trade Correspondents?—Yes, I should say so.

2956. You had something to say about the views of the Royal Colonial Institute. You thought they showed some possible conflict between that body's proposals and the working of your own department, but what the Royal Colonial Institute wanted, was it not, was a wider field of information?—No, because the field they are attempting to cover now, as suggested by their correspondence, is already covered by the official organization of the Board of Trade.

2957. They were not seeking to cover wider grounds?—No, except in so far as they wished to gather information regarding attractions of pleasure resorts. Such matters we do not take account of.

2958. You had something to say as to the criticism that had been made by a witness before us the other

day, who suggested that "The Board of Trade Journal" did not give as wide information as he thought perhaps it should have given, and I understand you to express the view that it is not the aim of that journal to supply information to merchants oversea?—No, it is purely for the information of British manufacturers.

2959. Do not you think that better work could be done, and that the interests of Imperial trade in the different centres could be better served, if the aim of such a journal was to give information as well to merchants overseas?—No, I think it would become too general, and I am a great believer in each country carrying out its own trade organization.

2960. That is the opposite of an Imperial outlook for the trade of the various parts of the Empire?—Yes, but I think a lot can be done by co-operation.

2961. Would not that be co-operation in its best sense?—No, I think it is centralization.

2962. Does not centralization, where there is representation of all, mean co-operation?—It is co-operation carried to its exteme limit. It is then carried too far. I think a good deal of give and take may be done with advantage. For instance, here there is a Canadian Trade Commissioner, and we are next door to one another, and we frequently see and discuss things with one another in a friendly way, but I do not believe in over-centralization. To my mind such a proposal is not practical, it won't work out in detail.

2963. Would it be unfair to say that you are not an Imperialist as far as the trade of the Empire is concerned?—I am nothing if not an Imperialist, if that means one's desire to see all portions of the Empire flourish and work in harmony, but I think that that end can be best secured by each part of the Empire carrying out its own organization in matters of trade. That is my own view.

2964. May I refer you to the view on that question that was given by Mr. Harris, the gentleman who represented the Imperial Institute before us in the Mother Country—that the trend of that Institute has been, year by year, to expand and to extend the trade of the Empire and the sphere of usefulness which that body was trying to exercise?*—Yes, and I think it serves a very useful purpose. It is of great advantage to people in the Dominions. That is one of the directions in which I have tried to make my office useful for local people—samples of ore have been brought to my office, for instance, and, entirely free of charge, the Institute has made analyses and given the commercial values of these ores.

2965. And, whilst that body began by confining the information it collected to British merchants, it has gradually developed a system of extending the information to Colonial merchants of repute to whom the information may safely be given?—My own opinion is that there is a great distinction between the Trade Commissioner's Office and the Imperial Institute. The Dominions Trade Commissioners are representative of their own Colonies, and those countries are fast increasing their development. Therefore, they must come into conflict sooner or later in the matter of trade. A manufacturer in Canada will come into competition with a manufacturer in Great Britain, and a manufacturer in South Africa with another in New Zealand, for instance. I think if you centralise you will eliminate all the most important factors—first, the national identity of a Dominion, and also the human side of things. You cannot get a Trade Commissioner to have enthusiasm in his work if he is to represent the whole Empire. Suppose a Canadian was appointed Imperial Trade Commissioner in this country, I do not think he could eliminate his affection for Canada and his desire to promote her interests at the expense of other portions of the Empire. He would become a mere machine if he did.

2966. The point that I am trying to confine attention to is that there is a different policy between the attitude of the Imperial Institute and the British Trade Commissioners, as to the scope of the supply of the information that comes before them in the interests of trade?—Quite so, but then the aims are not the same. I draw a great distinction between the functions and objects of the Imperial Institute and the Trade Commissioners. The Imperial Institute simply enlightens people in regard to the value of a certain discovery, but that discovery may come into conflict with a similar discovery in another Dominion. Those two Dominions will then fight for the trade.

2967. **(Sir Rider Haggard.)** *A propos* of the heading in this précis that misrepresentation or infringement of trade marks occurs; do you find that there is much misrepresentation?—Not much. I think the reason for this absence is the vigilance of the Authorities in this country. Cases have come to my notice and the Government has taken action as far as possible.

2968. Have you anything further to say on that heading?—No.

2969. Have you ever given your attention to the matter of an Empire trade mark?—No, apart from reading discussions that have taken place at Commercial Congresses; but from the practical side I do not think I could give any views of assistance.

2970. **(Mr. Campbell.)** I think that you said, in reply to Mr. Sinclair, that you admit that there is a very large field for the large Dominions and the United Kingdom trade representatives to co-operate?—Yes.

2971. I take it that, although you object to any bureaucratic Imperial control of trade affairs, you would recognise and admit that in order to direct this co-operation it would be necessary to have some sort of Imperial Advisory Board?—Yes, I think an Advisory Board is very desirable. I think a round-table discussion would be a good thing. May I just illustrate my position in regard to centralization? Supposing there were an opening for trade in South Africa, my usual course is to despatch particulars to the Board of Trade. In the case of a contract, for instance, I send the specifications and drawings to the Board of Trade, by whom it is disseminated among all British manufacturers likely to be interested. Suppose you had a central office in London, and I sent that information there, are they going to hold back the distribution of that information until it can be sent to Canada and Australia and New Zealand for the information of manufacturers in those Dominions?

2972. **(Mr. Sinclair.)** Could you not send it to Australia?—It would take longer than to England and reach one place before the other—you have that to consider. I merely give it to illustrate my position.

2973. **(Mr. Campbell.)** Generally speaking, I have had all my difficulties cleared up except the one in respect to the activities of British merchants. In reply to different Members, you have, I think, emphasised the position that the British merchant is quite alive to the necessities for new openings for trade in South Africa, but in your report—and this is my particular trouble—you point out, on page 25, reasons for the success of the United States, and you give as a reason "their inventiveness and genius in the matter of supplying something new and attractive," and so on; and then you give reasons for the success of German competition, and you say "there is a determination and thoroughness about German commercial methods which is deserving of imitation"; and with respect to the Netherlands you point out that there has been an important official action which has resulted in the success of their trade, and, I suppose, the Belgian trade; and so on with the Italian trade. It does appear to me that these statements in the report are put there for the purpose of comparison of the activities of the British merchant with those of other countries?—Yes, but I give the reasons for the "relative" success of those countries in competition. Each country has its own characteristics, and those are my reasons for accounting for the relative success of those countries; and, if I may also point this out, a Trade Commissioner's Report is written with an object, and that is to arouse greater activity and give reasons for the exercise of greater activity.

2974. But would you go so far as to say that there is not any direction you could point out in which the

* See pages 171–189 of [Cd. 7351].

British merchant could increase his activity in this country?—I have already stated that there are many directions in which we could. We could increase even if we did 90 per cent., but I simply made a general statement that, taking things as they are, we stand in a very good position.

2975. But, taking the case of the United States, for instance, would you say that the British Board of Trade is as well represented as the United States with the same expenditure of money on organization and the same covering of ground by Board of Trade representatives and Consular representatives?—In regard to the expenditure of money, as far as the oversea organization is concerned, there is not the same expenditure, but I think our system is better. I think the system whereby the Trades Commissioner is constantly on the move serves the same purpose as having a number of people at different centres. In the case of Johannesburg, we cannot do quite as much. I know that merchants have at times found it necessary to appeal to some one for catalogues of certain machinery, and, in the absence of a British Office, it has probably been the case that, through the agency of the American Consul, an American firm has got the order. Occasionally, circumstances of that kind do arise, but I think, on the whole, that our system is better than that of our competitors. I think our rivals have to maintain the system that prevails, because, apart from the trade side of their work, they have certain Consular functions to perform which make permanent residence essential.

2976. I think it was in one of your reports that I saw attention called to the fact that the United States had a special representative in Johannesburg, and you recommended something similar?—Yes.

2977. That competition of Italy in cotton goods, is it in any way prejudicial to the Manchester cottons, or does it compete with rough Indian cotton?—I hesitated to give you a specific case just now where trade could be assisted by a Commissioner taking the initiative. But I will mention here, to make my evidence clear, that, in this country, there is a certain line of cotton-piece goods which is used by the Dutch farming population and by the natives. It is a very cheap cotton print. The features of it are the fastness of the dye and the particular method of printing and finishing the cloth, which was done in a hard "boardy" way. When the native buys this cloth, he feels it, and if it has not got that "boardy" finish, he passes it by. This trade was formerly entirely in the hands of Germany. It is a very large trade, and for years past British firms have had their attention called to it by individual merchants, but I think these merchants simply gave the total value of their own buying. This did not mean to the manufacturer a proposition for which it would be worth his while laying down a special plant at great expense. When I took over the office of Trade Commissioner in South Africa, I took up this matter with merchants at different centres. I was not encouraged, because they said that the thing was well known in Manchester, and they did not think any great advantage was going to result from my efforts. I asked the Board of Trade to allow me to go to Manchester specially to consult the trade as to whether it could be done. I was able to give a rough idea of the total volume of trade in that particular article, and, to be brief, I may say that a considerable sum was voted before I left Manchester for laying down special machines. For twelve months and more experiments were made and the cloth is now successfully established in this market. We are doing a very satisfactory share of the trade. It is interesting to remark that, at the same time as I took the matter up with Manchester an Italian representative visited this market for the first time, and he, too, saw the opportunity of competing. The position to-day is that, instead of this being a German monopoly, Manchester, Germany, and Italy are now competing for the business, and I think we will win in the end.

2978. **(Sir Alfred Bateman.)** Is there anything which you wish to add?—I should like, if I may, to refer to one further point in the evidence taken by the Commission in London. Mr. H. L. Symonds, representing the London Chamber of Commerce, referring to the periodic visits of the Trade Commissioners to the Mother Country (page 62 of [Cd. 6517]) said:—

"In the London Chamber of Commerce, we have always done our best to arrange for interviews between these Trade Commissioners (when they have come home from time to time) and our members, and our Secretary has taken a great deal of trouble in affording facilities for these interviews; but, unfortunately, people are very often very lax and do not seem to care very much about having them." It would, I think, be unfortunate if the Commission concluded from the above statement that the periodical visits of Trade Commissioners were generally regarded with indifference. As regards this market, experience proves the contrary to be the case.

During my last tour of the Home market (1912), I visited 13 manufacturing centres, and the number of recorded interviews with individual manufacturing firms was 187, whilst a number of additional interviews were granted of which no record was taken. Of the 187 referred to, no less than 55 firms were seen at the offices of the London Chamber of Commerce or at the Commercial Intelligence Branch of the Board of Trade in London. This, I think, is proof that Home firms take practical advantage of the facilities afforded them.

I should like to say that Chambers of Commerce render Trade Commissioners a very real service in connection with these periodical visits to manufacturing centres, for not only do they provide office accommodation but, in many cases, they put themselves to a considerable amount of trouble in circularising their members and in subsequently arranging times for interviews and giving particulars to the Commissioners regarding the nature of subjects to be discussed and the standing of firms, &c. This co-operation greatly facilitates the work of the Commissioners and econo mises time.

Cape Town, Tuesday, 3rd March, 1914.

Mr. Kenneth Bingham Quinan, General Manager of the Cape Explosive Works, Ltd., called and examined

2979. **(Chairman.)** You are the General Manager of the Cape Explosive Works?—Yes.

(*The witness submitted the following statement.*)

Cape Explosives Works, Limited.

Synopsis of evidence to be given before the Dominions Royal Commission in support of an application to the Government of the Australian Commonwealth for the abolition of the 5 per cent. *ad valorem* Customs duty which is at present levied on explosives of South African manufacture entering the Commonwealth.

1. Explosives manufactured in, or the produce of, the United Kingdom enter the Australian Commonwealth duty free, and we contend that we should be given a similar privilege for our manufactures. All other explosives pay a Customs duty of 5 per cent. *ad valorem*, so that South African manufactured explosives obtain no preference whatever, but are put on the same footing as Continental manufactures.

2. As showing the extent of the reciprocity already existing between the Commonwealth and the South African Union, and how greatly the former benefits therefrom, we may mention that during the year 1911—the last year for which we can obtain definite figures from Australia—the preference given by the South African Union to commodities of the Australian Commonwealth amounted to 45,918*l.* in the form of

rebates of duty, whereas the Australian Government only reciprocated to the extent of 796*l*. It is difficult, therefore, to understand the attitude of the Australian Government in regard to South African manufactured explosives.

3. To the best of our knowledge we are the only company selling high nitro-glycerine explosives in Australia which has no connection with any trust or combine, and we originally entered the Australian market at the invitation of several of the leading Broken Hill mines, making our first shipment of explosives in December, 1908.

The explosives trade at the time of our entry was in the hands of—that is to say, regulated and controlled by—a body known as the High Explosives Trade Association, composed of the representatives of the different trust companies or their partisans, who were about to increase very seriously their prices to consumers when we were appealed to by the mines above referred to, with the result that the proposed increase was at once abandoned and prices resumed their normal level.

In this connection it might be mentioned that in the "Cape Times," of 28th February, 1910, a cable was published, dated Melbourne, 26th February, which stated that the Directors of Broken Hill Mines had informed their shareholders that the Cape explosives meant an annual saving to the companies using them of 125,000*l*.

4. The majority of our customers in Australia are mining companies who have entered into contracts with us on the co-operative system, under which we supply at factory-cost plus certain charges for interest and amortization. If the obnoxious duty is removed, these companies will obtain the full benefit of the removal, as under their contracts with us we forward explosives to destination, and they have to refund to us all costs of transport, landing, duty, and any other charges payable on their explosives, so that the benefit to these Australian mines will be a real one.

We, on our part, have done all we possibly can to make these charges as light as possible, even going to the extent of purchasing our own steamer and shipping the explosives in her at regular intervals of from three to four months, charging a considerably less rate of freight than could be obtained from the shipping companies.

5. Attached is a schedule showing the number of cases of explosives shipped by us to the Australian Commonwealth from the time we entered the market in December, 1908, to the end of our last financial year, 30th June, 1913, together with the amount paid by us in duty as nearly as we can give it.

We are putting this evidence before the members of the Commission in the hope of enlisting their sympathies and obtaining their valuable assistance in our endeavour to secure what we consider our just rights as producers in a British Colony.

Statement shewing Explosives shipped by Cape Explosives Works, Limited, to Australia since the commencement of our business with that Continent in 1908 to 30th June, 1913, and the duty paid to the Australian Commonwealth on same.

Year.	Blasting Gelatin.	Gelignite, 70 per cent.	Gelignite, 60 per cent.	Dynamite, 50 per cent.	Dynamite, 40 per cent.	Dynamite, 26 per cent.	Dynamite, 25 per cent.	Dynamite, 30 per cent.	Pot. Gelignite, 60 per cent.	Value fixed by Australian Government on which duty was paid.				Total duty paid.			
	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Cases.	Total Cases.	£	*s.*	*d.*	£	*s.*	*d.*	
1908–9 ...	1,312	812	1,250	—	300	50	—	—	—	3,724	7,211	15	4	360	11	9	
1909–10 ...	1,521	1,690	4,915	—	250	20	—	—	—	8,396	15,697	9	1	784	17	6	
1910–11 ...	3,710	2,900	6,305	—	100	—	—	—	200	13,215	25,632	8	2	1,281	12	5	
1911–12 ...	3,435	400	7,505	—	—	—	—	—	—	11,340	21,791	12	2	1,089	11	7	
1912–13 ...	4,550	405	11,206	60	330	—	15	25	—	16,591	31,392	18	8	1,569	12	11	
	14,528	6,207	31,181	60	980	70	15	25	200	53,266	101,726	3	5	5,086	6	2	

Cape Explosives Works, Ltd.,
Somerset West,
Cape Province.

12*th February*, 1914.

2980. **(Chairman.)** And you do a large trade with Australia?—We would like to.

2981. I see by your statement that you do an increasing trade?—Yes.

2982. Last year the value was 31,000*l*.?—Yes.

2983. As compared with 21,000*l*. in the previous year, 25,000*l*. in 1911, and 15,000*l*. in 1909–1910?—Yes.

2984. In that trade with Australia, whom do you compete with?—Almost entirely with the Nobel Trust.

2985. Where do they manufacture?—In Europe, in Great Britain, and on the Continent.

2986. And your point is, that they send in goods which obtain a rebate of duty, whereas you have to pay the full rate?—That is my point or, more particularly, that the explosives manufactured by British factories under the Nobel Trust are allowed to be imported into Australia free of duty, but we are placed on the same footing as their German factories and pay 5 per cent. duty; a portion of Nobel's produce, therefore, enters free of duty and a portion pays 5 per cent.

2987. I should point out that fiscal questions are outside the reference of this Commission, but I understand you to appeal to be placed on the most favourable basis and not upon the least favourable?—Yes.

2988. The question is perfectly simple, and it remains for the Commission to decide whether they can forward your request to the Australian Government?—Yes.

2989. **(Mr. Campbell.)** You say that you compete chiefly with the Nobel Explosives Company?—Yes, or rather the companies comprised in the Nobel Trust.

2990. Do you know whether the capital of that Company is generally held on the Continent or in England?—I should say, as a guess, that it is about evenly divided between the Continent and England.

2991. Do you know, in regard to the stuff which they export from England, whether the whole process of manufacture is carried on there or only a part, and the rest on the Continent?—That is rather a difficult question for me to answer, for this reason: The finished product, from the Australian point of view, is identical, whether it is made in England or on the Continent, and the process of manufacture is complete in both cases. They use the same raw materials and put the goods through the same process of manufacture.

2992. Practically, all the high-power explosives are in the hands of the combination in Europe?—Yes.

2993. You have nothing whatever to do with it?—No. I think our factory enjoys the unique distinction of being the only independent company doing a large business in this commodity in the world.

2994. Has there been any attempt on the part of that combination in Europe to control the prices?—That is the object of the combination. I should, perhaps, explain to the Commission that up to 1908 there were several factories—both European and English factories—competing in the Australian market, and these were cutting each other's throats and selling explosives at unprofitable rates, but they finally agreed to bury the hatchet, and sent circulars to the large consumers in Australia to the effect that on and after a certain specified date their explosives, of whatever origin, would cost 15*s*. to 20*s*. a case

more. The Australian mines realised that there was no longer to be any competition, so they set about to find an independent producer of explosives from whom they could draw their supplies. They approached our factory and asked if we would supply their requirements of explosives, in fact, they invited us to enter the market, and we consented to supply the Australian mines with explosives. We have been fighting to develop a decent trade ever since 1908, but, of course, directly our products put in an appearance the Nobel Trust combined their forces to crush us out of the Australian market, and I may tell you that they went so far as to obtain or to purchase, practically, the whole of the shipping space in vessels going to Australia, *viâ* the Cape, and which could transport our goods, and we were then forced to purchase our own ship in order to execute our contracts. After the first year's operations the Chairman of the Broken Hill Mines reported to the shareholders that the advent of our explosives on the market had saved them no less a sum than 125,000*l.* sterling.

2995. Do you think those figures are approximately correct?—Yes, I think so, because the consumption in Australia is, roughly, 175,000 cases per annum, and it was the intention of the Trust to increase the price of explosives from 15*s.* to 20*s.* per case. Well, that would be from 150,000*l.* to 175,000*l.* per annum.

2996. **(Mr. Lorimer.)** Is the United Kingdom the only part of the Empire from which explosives are admitted into Australia duty free?—Yes, so far as I am aware.

2997. Who are your competitors, apart from the manufacturers in the United Kingdom? The manufacturing factories in Germany.

2998. Is there any competition from any of the other Dominions?—No.

2999. Does the Canadian Explosives Company ship anything to Australia?—No. The reason for that is that practically the whole of North America is controlled by the Dupont Powder Company, and the whole of Europe and Australia—the rest of the world, in fact—is controlled by what is called or known as the Nobel Trust. There is an arrangement between the Nobel Trust and the Dupont Powder Company which prevents competition.

3000. But the Canadian Explosives Company is really a branch of the Nobel Trust?—Yes, I believe it to be.

3001. It occurred to me that, if they were to compete with you direct, they would have to pay the 5 per cent., but if they shipped to England first and from there to Australia, it would be a different matter?—I am not quite clear on that point, but I think in that case they would have to declare the country of origin.

3002. Well, you seem to carry on this business in a way that really amounts to this: Your cost price, plus expenses, and a certain profit is what you want to make, and anything above that which the price affords would go to the benefit of the consumer?—Yes.

3002a. It is hardly for us to interfere in a question of tariffs, but what are your buyers in Australia doing to help you?—Nothing.

3003. **(Chairman.)** Are the Australian mining companies doing anything?—They have made representations from time to time to their Customs Department, but so far absolutely without success. The cry has always been that black labour enters into the manufacture of our explosives, and Australia is a white man's country.

3004. **(Sir Jan Langerman.)** I understand you have to pay a duty of 5 per cent.?—Yes.

3005. In making up your invoices, do you put the duty on or do they put the surcharge on?—When we first sent our explosives to Australia, the Customs Department were not prepared to accept our invoices as representing the *bonâ fide* value of the explosives concerned, because they took the view that we were dumping goods into Australia. Owing to the difference between our landed cost and the cost quoted by our competitors, they adopted a scheme for arriving at the value for Customs purposes, which amounts to this: They added from 3*l.* to 5*l.* per ton to the *bonâ fide* value and levied 5 per cent. on that basis, so we have to pay duty on this enhanced value.

3006. Then, it was not due to the fact that you employed black labour that they put on this extra 5 per cent.?—I am unable to answer that question.

3007. **(Sir Alfred Bateman.)** I do not understand whether it is the law you are complaining of or the administration of the law, because, if it is the law itself, I, for one, do not consider that it comes within our reference, because we cannot ask them to change this law, but if it is the administration then, possibly, it may be otherwise?—It is the administration.

3008. Whether it has been a mistake or whether they do not comprehend all the facts, I understand you claim that under the existing law they are not obliged to charge you this 5 per cent. extra?—Yes, that is my point. The principle of reciprocity is established between the two Colonies, and there is already in existence a very large free list. Australia sends goods to South Africa, amounting to a very large sum of money, every year, on which the Union rebates to Australia about 45,000*l.* per annum, whereas our exports to Australia are practically nil, and the consequence is, that the Australian Government rebates to the Union Government only about 800*l.* to 900*l.* We claim that they should carry that principle of reciprocity a little further.

3009. As I understand, from my experience of treaty and tariff measures, reciprocity has to be under like conditions and is not absolute; their point seems to be that your product is made by black labour?—I know they have argued the labour point.

3010. At any rate, your claim is that, under the existing law, it would be competent for the Australian Government to let in your articles at a lower rate?—Yes.

3011. **(Mr. Lorimer.)** I wanted to ask how many people you employ in your works?—About 1,000.

3012. To what extent would your industry be increased if this duty were removed?—We, at present, export a matter of 16,000 to 18,000 cases a year, and this trade might be doubled.

3013. Do you ship them to Australia?—Yes.

3014. And do you pay the difference?—Yes.

3015. What is the consumption in that country?—About 175,000 cases.

3016. So you supply about 10 per cent. of their consumption?—Yes.

3017. And I understand you could increase your exports and so give more employment here?—Yes.

3018. Your position in the matter is, that the duty, if it were taken off, would not go into your pockets but would obtain for you larger business, and having obtained a larger business you would, naturally, reap a larger profit?—Yes.

3019. **(Mr. Campbell.)** Have you made any representations to your own Government to have the explosives put on the list of preferential articles?—Yes, since 1908.

3020. And you say they have tried and failed?—Yes.

Mr. John William Jagger, M.L.A., Wholesale Merchant, and President of the Cape Town Chamber of Commerce, called and examined.

(*For evidence of this witness on "Exhibitions," "Statistics," and "Legislation," see pp.* 124, 127, *and* 181; *and on "Land Settlement and Irrigation," "Steamship, Post and Telegraphs," "Harbours and Coal for Bunkering," "Empire Development," and on "Fruit," see pp.* 6, 60, 102, 160, *and* 317, *of* [Cd. 7706].)

3021. **(Chairman.)** We shall be glad of your opinion with regard to the Trade Commissioner system?—I can only speak of my knowledge of the Trades Commissioner in Cape Town who represents the United Kingdom, and the one in England representing South Africa. As regards the one at home, we think he has done a great deal of good and has found fresh markets for our products, and also given a lot of valuable information as to packing, &c. I think that was one of the best appointments ever made by the

Government. And as to the one in Cape Town, who represents Great Britain, I think he has also done a very good work.

3022. Have you any improvements to suggest in the system?—No, I do not know of any special improvements. I see the suggestion has been made here in this report that more of these officials might be appointed, but I am not so sure about South Africa. Of course, you have only got about five big trading centres in this country.

3023. **(Sir Alfred Bateman.)** You mean whole-time Trades Commissioners as against the system of Trades Correspondents?—I think the Commissioner is better than the Correspondent.

3024. Would you have another Commissioner at Johannesburg?—No.

3025. Do you think that the Trade Correspondent there is quite sufficient?—Yes, I think that one man in South Africa is quite plenty.

3026. Do you speak from the importers' point of view?—I speak from the point of view of an importer.

3027. I mean from the point of view of the British manufacturer pushing his goods as against foreign competition?—Yes, largely. I do not think, myself, that in South Africa there is room for more than one man.

3028. There is no office in Johannesburg?—I do not see any difficulty about it.

3029. Do you think it would be sufficient if there was a subordinate official there?—Well, he could have a subordinate officer there. He could not be going round every day to these people asking for information. For instance, when he comes down to me I am always glad to give him all the information I can, and I suppose that others do the same, but if he came to me every day perhaps it might be another story.

3030. He is home every two years, and goes round to Manchester and other places, and tells the manufacturers what he has seen and what prospects there are for expansion in the market here. You will agree that that is a good thing?—Yes. But, of course, as you know yourself, the difficulty of getting an English manufacturer to adapt himself to new requirements is very great. He will not touch the business except it is on a very large scale. Take this particular case, where the Commissioner has been successful in regard to German prints. Of course, we bought these goods in Germany, and we never worried where we got them from as long as we got them at the right price. But now, of course, it is the duty of the Commissioner to go further than that and to interest the British manufacturer in the making of them. We might have done it in a sort of way, but if the British manufacturer declined we did not worry any further. But Sir Sothern Holland has persevered and got the British manufacturer to take them up.

3031. And do you not think that is the right thing?—Yes, most decidedly; but there is one class of stuff in which he has not been successful, and that is coloured cotton blankets. There is a very large import of these goods into this country from Belgium, and up to now the English manufacturer has not taken them up.

3032. You do not care very much where they come from as long as you can sell them?—No. Naturally, we are like all Englishmen. We prefer to get our goods in the Mother Country, if we can, but it is not our business to teach the English manufacturer his business.

3033. It is Sir Sothern Holland's duty?—Yes, and I think he has done a good work. But what I do say is this, that I do not quite agree with the suggestion in pressing, so far as South Africa is concerned, for more of these officials.

3034. **(Chairman.)** Now about the subject of an Empire trade mark; are you prepared to speak on that?—I have given some thought to it. It strikes me that it would be far more useful in regard to foreign or Continental or South American countries than it would be here. For this reason. We get certain manufactured goods from foreign countries, but the big bulk of our manufactured goods comes from the Mother Country. What we do not get from there are articles like coffee, sugar, timber, and things of that character. I think the idea is a good one, but I do not think it would be so useful here as it would in countries which did not get the same proportion of stuff from England that we do. The bulk of my imports comes from Great Britain. Why should I want to have all that stuff marked?

3035. So you do not think that if the scheme were adopted it would lead to considerable expansion of British markets?—No, I do not think so. I see no special benefit. I was struck with what you said in your Second Interim Report, which is very much the feeling in this part of the world.

3036. It is on page 53, paragraph 128?—Yes. It exactly represents the position in South Africa.

3037. **(Mr. Sinclair.)** Is there anything that you can tell us about your local industries that you have not touched on in your evidence on other subjects?—No, I do not think so.

3038. Is there a feeling of sympathy on the part of the people here with local industries and local products?—Yes, I think so.

3039. As regards dealers who retail products such as bacon, and provisions of that sort, will they be satisfied with the same margin of profit on the local article which they are selling as they are willing to take on the article they import?—I should say they would not get such a good profit on the local article as on the imported. That is the general experience. What rather puts the dealer in many cases against the local article is that he cannot rely so much on getting it regularly and of standard quality. If you get your shipments from over sea, it is different. Take butter, for instanec, or cheese; you know the standard quality of that article when imported, and that it will be the same all along.

3040. **(Sir Alfred Bateman.)** That is one of the difficulties against which local produce has to struggle?—Yes.

3041. You think that, broadly, there is a feeling of sympathy with your own local products?—Yes, most certainly.

3042. **(Mr. Campbell.)** With regard to the Empire trade mark question, was your Chamber represented on the 1912 Conference in London?—Yes, I think so.

3043. And was your Chamber in favour of the Empire trade mark when the question came up?—I could not say.

3044. But the Chamber arrived at no decision?—No. It has never been very much before us. We have never gone deeply into it. The bulk of our manufactured goods comes from Great Britain, and I think that is perhaps the greatest reason.

Cape Town, Thursday, 5th March, 1914.

Mr. W. J. Egan, Canadian Government Trade Commissioner, called and examined.

3045. **(Sir Alfred Bateman.)** You are Trade Commissioner for the Dominion of Canada, in Cape Town?—Yes.

3046. How long have you had that post?—Since the 1st June.

3047. And where were you formerly?—At Manchester, England.

3048. Who preceded you here?—Mr. Chesley.

3049. Had he been here long?—About seven years.

3050. I think your offices are next door to those of the British Trades Commissioner, are they not?—Yes, in the same building.

3051. I suppose that fact helps you both?—Yes, is assists in co-operation.

3052. Can you give us any idea of the trade between Canada and South Africa?—For the year 1913,

our total trade with the Union of South Africa amounted to 3,474,371 dollars. Our fiscal year for 1913 ended on the 30th of April.

3053. Can you tell me what the imports and exports were? Can you divide the three millions?—That was our total export.

3054. Then can you give me the chief articles?—Living animals, flour, wheat, cereal foods, carriages and carriage parts, motors, canned salmon and sardines, fruits (which are chiefly apples), lumber, wooden-ware, metals, and manufactures of all kinds. That is including our agricultural machinery exports.

3055. Are those large now?—Yes, for 1913, including metals and minerals, 458,000 dollars.

3056. How much of this represents agricultural machinery?—Say about three-fourths of that. Say 335,000 to 340,000 dollars. That is a rough estimate. I can give you figures of agricultural machinery for the six months of the 1914 fiscal year.

3057. Can you give us in the next day or two a table showing the chief articles?—Yes.*

3058. Do carriages and carriage parts include motors?—Yes.

3059. Now, as regards other imports?—Fish, canned salmon, sardines, fruits—that is apples—metals and manufactures, furniture, musical instruments, paper—news, printing, and wrapping—wood, including boards and deals, and manufactures of wooden wares of all kinds. These are our own direct exportation figures. But a certain amount of Canadian goods come *viâ* England, which do not figure in these. So our trade is a little larger really,

3060. So it may be nearly four million dollars?—Yes.

3061. Now, as regards the imports to Canada from South Africa?—The total for 1913 was 272,000 dollars.

3062. Of course, that is very much less?—Yes, for 1912 it was 384,000 dollars. It dropped considerably, because in 1912 there was 240,000 dollars' worth of sugar imported from this country, but none last year.

3063. You get it now mostly from the West Indies?—Yes.

3064. Can you give us the chief articles you import?—Yes. Furs and manufactures of, hides and skins, other than furs, wool and fancy goods. Those are the principal items.

3065. Now as regards the possibility of expansion of Canada's trade with South Africa?—The possibilities are immense from several points of view.

3066. You, I suppose, represent really the export from Canada to South Africa?—Yes.

3067. You do not, I take it, take much part in the imports into Canada?—Yes, they are helped very much. I have personally interviewed merchants in this country, and when I travel, I invariably bring to their notice opportunities in this direction. As you may know, our Department of Trade and Commerce issues a publication called "Weekly Report," and this is distributed each week to all merchants in Canada who are interested in trade and commerce, and free of charge; we are always prepared to give individuals assistance who may want it for the selling of their particular goods on our side, and our offices are always at their service for information of any kind.

3068. You find them agents in Canada?—Yes.

3069. Has the trade been increasing of late years—say for the last five years?—Yes, it has increased as follows:—

	Dollars.
In 1909 it was	1,679,000
In 1910 ,, ...	2,354,000
In 1911 ,, ...	the same
In 1912 ,, ...	2,495,000
In 1913 ,, ...	3,474,000

and for the six months of our 1914 fiscal year, the totals are 1,988,000 dollars, which is an increase over the same period of 1913 of 361,000 dollars.

3070. Does that include gold and diamonds?—No. We have none to send here.

3071. I mean on the other account?—No, unless diamonds would come under the head of fancy goods: I do not know.

3072. Do you register the diamonds in your statistics in Canada?—Yes, also gold and bullion.

3073. You register the gold and bullion, but you do not register the specie, do you?—Yes.

3074. In what particular lines do you think there will be an expansion of trade?—To here?

3075. Yes.—In lines shipped from the United States, whose productions and manufacturing conditions are very similar to our own. The shipping conditions are exactly the same—in fact, they are a little in our favour, owing to the direct steamship service which we have. As you know, our local manufacturing industries and productions in the Dominion are growing very rapidly, in fact they are now getting to that point when the production is beyond our consumption.

3076. In your manufactures?—Yes, in several lines. Many have already reached, and others will arrive in the near future, at that point when they will produce beyond the home consumption, and under those conditions, Canada is destined to enter the world's markets, and, of course, share in South African trade in a larger way than she has hitherto done. I am laying my lines broadly so as to secure for Canada some share of the United States trade to here.

3077. Is that chiefly in agricultural implements?—No. In machinery of all kinds—agricultural implements, dairy machinery, well-boring machinery, hardware tools, wooden-ware, paper, &c.

3078. Is there much for the mines? Implements and machinery?—We hope to figure in that pretty prominently. This is the first year that we have attempted it, and we have secured several orders in South Africa this year for mining and well-boring machinery.

3079. Will the Panama Canal have any effect on your trade with South Africa?—Not for some time, to my mind.

3080. Not in manufactures?—No.

3081. Your manufactures are all on the Atlantic side?—Yes, mostly. Of course, the Panama Canal will have the effect of creating manufactures on the Pacific coast, and it may come in time. But as to the direct benefit in the immediate future, I cannot see any. The opening of the Panama Canal is bound to be of immense advantage to Western Canada. It will develop industries in the western wheat Provinces,

* *The witness subsequently handed in the following table:—*

TOTAL VALUE FOR SOME OF THE PRINCIPAL ARTICLES EXPORTED FROM CANADA TO SOUTH AFRICA.

—	1909.	1910.	1911.	1912.	1913.
	$	$	$	$	$
Grain, all kinds ..	20,262	122,550	64,726	54,606	
Grain Products. Flour, Bran, and Oatmeal.	990,257	1,274,346	967,370	897,195	No details.
Cereal Foods ..	125,362	80,645	138,150	93,195	
					Total, all kinds,
Total, Breadstuffs	1,135,881	1,477,541	1,170,246	1,044,996	1,740,980
Total, Carriages and Motors.	52,056	72,615	82,857	171,697	493,895
Totals, Fruit ..	22,689	13,606	17,889	32,500	30,256
Iron and Steel and manufactures of Agricultural Implements:—					
Cultivators ..	—	—	—	6,350	
Harrows	7,737	12,416	18,859	34,559	
Harvesters ..	4,114	10,571	23,067	28,124	
Hay Rakes ..	105	697	937	1,319	
Mowing Machines	1,190	9,660	2,585	6,646	
Ploughs	32,014	75,874	143,379	211,737	
Reapers	467	1,555	1,190	5,125	No details.
All other Agricultural Implements.	5,399	14,213	12,876	8,616	
Total Agricultural Implements.	64,500	151,762	230,314	353,781	
Hardware, Machinery, and other Metals.	71,286	35,042	69,006	40,860	Total, all Metal and Manufactures of—
Total, Metals ..	135,786	186,804	299,320	394,641	458,730
Musical Instruments	10,130	20,668	20,195	23,792	23,271
Paper:—					
Printing	121,669	124,096	55,028	186,640	No details.
All other, n.e.s. ..	3,977	15,228	61,298	11,993	
Total, Paper ..	125,646	140,324	116,421	198,882	Total, 286,870
Wood and manufactures of:—					
Furniture	21,470	36,498	33,828	60,835	No
Lumber, Boards and Deals.	73,699	164,482	314,702	209,992	details at all.
Woodenware ..	13,650	27,102	20,152	18,086	254,023

and British Columbia in timber, coal, fish, and agriculture, eventually developing manufacturing industries on that coast. However, for some time to come, this development can only be of value to the nearer markets, Eastern America and Canada itself, also the United Kingdom. As regards South Africa, there is no saving in mileage practically by the Canal.

3082. But you have water carriage all the way?—Yes, from our Pacific coast to South Africa. But I have never heard or seen an expert mention the South African proposition. For this reason I went over the map myself some time ago, and I found that coming down the coast and through the Canal and across to Cape Town there would be a saving of only about 200 miles, as compared with the route *viâ* Cape Horn direct.

3083. But it is a better voyage through the Canal, is it not?—It would be, but there are excessive charges. If there is only a saving of 200 miles, as you develop new trade routes, and open up channels on the other side, it would simply mean that we would have more ships going round the Horn. The only possibility is that, at some time or other, western Canadian productions may get to such a point that even the markets mentioned, including the eastern and others, will not be large enough, and there may be stopping places on the Eastern American coast which may make the Canal route to here desirable.

3084. But if the Panama Canal has the effect of developing your manufactures on the western side, there would be probably prospects of trade in these manufactures with South Africa?—Still, I am not yet convinced that it will come through the Canal, unless there is a calling place, because my idea is that the charges through the Canal would be much more than the increased mileage of 200 necessary in going round the Horn.

3085. Are you sure of that distance?—No. It is my own reckoning, I admit. But, as I said before, I have never heard any figures given by experts in connection with South African trade and the Panama Canal.

3086. How about freights from Canada as compared with the States, or compared with freights from the United Kingdom, say. Are the rates as low? I think they are about the same now from the States as from the United Kingdom, are they not?—I have not the figures from the United Kingdom, but from Canada the difference in rates to South Africa as compared with Boston and New York to South Africa is about half a crown a ton in our favour.

3087. About seven years ago there was a war among certain steamship companies, and then the rates were very low indeed from America to here?—Yes.

3088. But we have been told now that there is very little difference: the freight is about the same from New York to here as it is from Liverpool?—Yes, I have heard it too, but I have not gone into it.

3089. Have you got plenty of shipping between here and Canada?—Yes. Of course, our Government has subsidised the steamship company for 12 direct sailings a year. They, I believe, actually give us an average of 14.

3090. What line is that?—It is the Elder Dempster Line. In 1911 that direct steamship service carried 73 different commodities, filling the boats each time. In 1912 the number was 74, and in 1913 it was 85.

3091. I understand they fill the boats?—Yes.

3092. What do they do for return cargoes?—They go by way of the East. They generally go home *viâ* India.

3093. Is that a combine? Are the Elder Dempster people in combination with other services or can you send goods by any other line?—Yes, we may. A great many come *viâ* New York.

3094. You are not tied in any way to them?—No, they are tied to us. They must give us a certain service. We pay 146,000 dollars a year for that service.

3095. Does it include the mails?—If required, and also cold storage accommodation.

3095A. You will want cold storage both ways in time if you take a certain amount of fruit from this country?—We hope to do so in time.

3096. And the fish trade?—For this we do not use cold storage as much as for our fruit.

3096A. You carry fruit for about three months?—Yes, apples, and sometimes pears.

3097. What months of the year?—October, November, and December.

3098. Have you any other observations to make?—No, I do not think so.

3099. Are you in touch with the Chamber of Commerce here?—Yes, I am a member, and in touch also with the business men of the country. I do travel about the country and have interviews with them in regard to Canada and her manufactures.

3100. **(Mr. Campbell.)** What are the articles on which the Canadian Government gets preference in the South African Union?—On whatever Great Britain may get preference. It is the same schedule.

3101. So that it is an all-round preference?—Yes.

3102. I think you said in reply to Sir Alfred Bateman you did not think the Panama Canal would make any difference in the Western Canadian trade?—My statement was that I thought it would not make any difference so far as South African trade was concerned in the immediate future, only to this extent, that the creation of this new channel will mean that more people will establish themselves in business on the other side of the country, and it may affect them to a certain extent, but that market is bound to go to those countries which are nearer and larger, and which require more of our goods than South Africa. Of course, as it develops in future, it will come here also.

3103. Would it not put Western Canada on the same basis in regard to timber as Sweden, for instance?—I cannot see it. There is no saving in mileage to any extent, and I have not heard anybody mention the South African proposition in regard to the Panama Canal; that is why I went over the map, out of curiosity.

3104. I see that 30,000*l.* worth of timber comes into South Africa every year from Canada. I suppose that comes from Western Canada?—A great deal comes from British Columbia, and a great deal from the eastern side, which is chiefly pine shelving.

3105. Which way does it come?—From the western side it comes right round the Horn.

3106. Does all the stuff from Western Canada go round Cape Horn?—No, some comes by rail, and is put on board ship on the Atlantic coast. Timber is about the only proposition that is affected.

3107. I believe that recently the Board of Trade issued an order or regulation under which the Canadian Trade Representatives were allowed to make certain uses of the Board of Trade machinery in the Dominions and Canada. Has much use been made of that?—My understanding is that the assistance was principally in regard to Consular offices and not so much Trade Commissioners. Consular offices in foreign countries.

3108. Does not that apply to the Trades Commissioners?—No.

3109. **(Sir Alfred Bateman.)** Surely you could get help from the Commercial Information Office in London, and be put into communication with Trades Commissioners in Australia, say?—There is no necessity for that, because we have our own Commissioner there. I could almost insist that there is no mention made about the services of Trades Commissioners. My understanding of that report was that we could obtain information by applying to the Consular service.

3110. **(Mr. Campbell.)** I suppose the Commissioners do assist one another where they can, as a matter of fact?—Yes, in some ways we do.

3111. Is there any room for mutual assistance and benefit by working in co-operation between the Trades Commissioners of the Dominions and those of the Mother Country working in the Dominions?—In what particular way?

3112. Is there any direction in which they can assist one another in supplying information as to markets, for instance, and so economise?—No, the only proposition that I can see that would be useful was, as far as this is concerned, that they might give one another information about the demand for certain commodities which exists. We can work to advantage in that direction. For instance, suppose I know that a certain article is in demand, and Canada cannot supply it. I know that Germany makes it, and that Great Britain makes it; in that case I should certainly co-operate with the British Trades Commissioner by

pointing the matter out to him in case he should not have heard of it. But outside of that I do not know of anything.

3113. **(Mr. Tatlow.)** I presume that Canada has only one Trades Commissioner in South Africa?—Yes. Since I came here I have started a new system whereby I have correspondents, and just at the present time I have two, and I will eventually have more.

3114. In Johannesburg, I suppose?—I have one there and another in Durban.

3115. And how long has there been a Trades Commissioner appointed here?—We have had a Trades Commissioner for nine years or more.

3116. You mention the Elder Dempster Line and a subsidy of some 146,000 dollars?—Yes.

3117. That includes the carriage of mails when required?—Yes. But at present they are brought *viâ* England on a 25-day trip.

3118. It is only applicable then, as far as mails are concerned, to a subsidary service?—Yes.

3119. As regards freights between South Africa and Canada you are satisfied?—Yes.

3120. Are they fixed and regular in amount?—Yes; we have a schedule issued by the Steamship Company.

3121. Do all the steamship companies charge the same rates?—We have only the one company sailing here, unless a boat is specially hired on the Pacific coast to come round the Horn or, in future, perhaps, through the Canal. That is specially arranged

3122. **(Mr. Sinclair.)** You have told us that Canada's trade with the Cape has increased during recent years?—Yes.

3123. Can you tell us the principal lines in which the increase has been most marked?—Yes; you do not want the details but just an example?

2124. That is so.—Take 1912 and compare that with 1913. In 1912 the amount of exports from Canada of bread-stuffs—flours, wheats, and cereals—amounted to 1,113,000 dollars, and 1913 to 1,740,000 dollars. Automobiles jumped up very considerably, and minerals and metals increased from 396,000 to 458,000. Paper from 198,000 to 286,000.

3125. Can you give us any estimate of the comparative increase of trade during recent years in the case of Canada, on the one hand, and the United States on the other?—I could give the figures for 1912.

3126. It is satisfactory to know that Canada's trade has increased. I suppose you cannot say what the trade of the United States is?—I can secure that from the South African returns and make up a list.

3127. I think that would be useful, because one must have a comparison in order to estimate the true value. Can you tell us, approximately, whether Canada is holding her own in regard to increase of trade as against the United States or otherwise?—No, I cannot tell you that right off.

3128. I suggest that is an important comparison?—Well, it would depend on the total trade here. I worked on these lines in England, but I have only been here six months organising.

3129. If you could give us comparative information as to the relative increases of trade between Canada and South Africa, on the one hand, and between the United States and South Africa on the other during the last few years, I should like to have it?—Yes.*

3130. Can you tell the Commission what the preference that is granted on imports from Canada has amounted to?—I could not say off-hand, but you can get it from the South African returns in a minute.

3131. It has amounted to a considerable sum?—Yes; 3 per cent. of three-quarters of the total.

* *The witness subsequently supplied the following return in connection with this and the previous answers:—*

Imports into Union of South Africa.

From	1909.	1910.	1911.	1912.	1913.
	£	£	£	£	£
Canada	465,596	631,829	637,193	680,707	880,222
United States ..	2,115,236	2,663,083	2,828,025	3,314,776	3,776,307

Canada's proportion of total for 1913 is 2·2, an improvement of ·4.

United States proportion of total for 1913 is 9·4, an improvement of ·6.

3132. Now, are these prospective increases which you look for being helped by the fostering conditions which exist at present?—Yes; I have found the trade, generally, in South Africa to be uniform in the expression of their opinion that they would prefer to trade with Canada under equal conditions, so that on a basis of preference it is even better. I am speaking as compared with the United States of America.

3133. Sentiment counts for a good deal, but more favoured conditions will help. Canadian salmon comes here in fair quantities?—Yes.

3134. Does Alaskan salmon also come here?—Yes.

3135. In any quantity?—Yes, in fair quantities, but there is not enough of the other to distribute.

3136. **(Sir Jan Langerman.)** You have given us the imports from Canada. What are the exports to Canada?—The total last year was, roughly, 272,000 dollars.

3137. What does that consist of?—Wool, hides and skins, furs and manufactures of furs, and fancy goods.

3138. Is that an increase in quantity?—No, because in 1912 we imported from here 240,000 dollars' worth of sugar, but none last year.

3139. What about other articles?—They have all increased. Fancy goods were 39,000 in 1912 and 85,000 in 1913. Wool was 45,000 in 1912 and 86,000 in 1913. Hides and skins were 51,000 in 1912 and 93,000 in 1913. These are the principal articles.

3140. **(Chairman.)** You said you anticipated an increase of trade between Canada and this country. In what particular articles do you look for an increase?—Generally, in lumber and manufactures of, in metals and manufactures of. Of course, I am not speaking of produce; that is regulated a good deal by local conditions here. Our wheat is used for blending purposes only, but under conditions such as last year we shall bring in a great deal more.

3141. Your wheat is used for blending with local wheat or with Australian?—With both. I was going to refer to the evidence given to you in England about the question of gluten quality in wheat, but there is no necessity to do so. There is no need to contradict the statement, because it is well known in the trade.

3142. What size are these vessels of the Elder Dempster Line?— From six to ten thousand tons.

3143. Do you mean dead weight?—Yes; that is the registered tonnage.

3144. Is there any idea of getting a similar service from the Pacific coast?—Not at present—I have not heard.

3145. Would there be sufficient trade in the way of lumber to justify a service of that kind?—Yes, I believe that the development of the Province of British Columbia will eventually bring something of that kind about, but as that development comes along, in my opinion it will first serve other markets which are much nearer than South Africa.

3146. You mean where the comparative gain through the Panama Canal is greater?—Yes.

3147. You take the view that Trades Commissioners could not be of any definite value, I understand?—No, not that particular view. Do you mean the British Trades Commissioner?

3148. Yes.—To the advantage of Canada?

3149. Yes.—Well, I must say I do think that, if he were in a territory looking after our interests as well as those of the Mother Country and the other Colonies, he could not be of much use to Canada in particular.

3150. He might co-operate?—Yes, along the lines I have suggested he could co-operate, but one Trades Commissioner could not do justice to all parts of the Empire.

3151. **(Mr. Sinclair.)** Was any of the value of the increased imports that you gave us due to higher prices?—No, the prices are very much the same.

3152. In regard to news-paper for instance?—No, that has been under contract for some time.

3153. Has there been any increase in the case of Canadian agricultural implements?—Yes, and there will be a bigger increase in future.

3154. I mean in cost?—No, not in cost, but in quantity.

Mr. J. Solomon, Representative of the British Manufacturers' Representatives Association of South Africa, Incorporated, called and examined.

3155. **(Chairman.)** I understand that you appear on behalf of the British Manufacturers' Representatives Association of South Africa?—Yes.

3156. Your Association has a membership of 394 *bona fide* oversea representatives?—Yes.

3157. What are they?—They represent oversea manufacturers in this country.

3158. And of your members I see that 90 per cent. are domiciled in this country?—Yes.

The witness submitted the following statement:—

I. This Association has a membership of 394 *bona fide* oversea representatives, 90 per cent. of whom are domiciled in this country, and 70 per cent. are married.

II. Existing licences are:—

Cape Province.—Yearly, for representing one firm, 50*l.*, and for each additional firm represented, 5*l.*; not exceeding 100*l.* in all; with a rebate of 50 per cent. for domiciled agents.

Transvaal Province.—10*l.*

Natal Province.—10*l.*

Orange Free State Province.—20*l.*

If the neighbouring territory were included, the additional licences would be:—

Southern Rhodesia.—30*l.*

North Eastern Rhodesia.—30*l.*

North Western Rhodesia.—30*l.*

Tati Concession.—5*l.*

Total, 95*l.*

In 1908 the Merriman Ministry proposed that the Cape Colony licence be double the above figures, but upon representations from this Association they agreed to the above fees, which have been in force ever since.

III. *Licences in other British Possessions:*—

British India.—No special regulations or taxes exist.

Australian Commonwealth.—No special regulations or taxes exist.

Western Australia.—No special regulations or taxes exist, but he is liable to a general Income Tax of 4*d.* in the 1*l.* on profits, which are estimated at 5 per cent. on gross sales.

Tasmania.—No record of tax or provision as to licence being necessary.

New Zealand.—No special licence.

Canada.—No licence, except for sale of liquor and tobacco.

Newfoundland.—No licence required.

British East Africa.—No licence required.

Ceylon.—No licence required.

Cyprus.—No licence required.

Gibraltar.—No licence required.

Hong Kong.—No licence required.

Malta.—No licence required.

IV. *Licences in Foreign Countries:*—

Argentine Republic.—There are various taxes, viz., Buenos Ayres and National Territories; and again in the Provincial Provinces.

Austria and Hungary.—No licence.

Belgium.—Reciprocal conditions.

Brazil.—No Federal Tax.

China.—No licence.

Denmark.—For one firm only, 9*l.*; and for each additional firm, 4*l.* 10*s.*

Egypt.—No licence.

France.—Reciprocal conditions.

Germany.—Nominal licence of 1*s.* per annum.

Italy.—No licence.

Netherlands.—No licence, strictly speaking.

Norway.—5*l.* 11*s.* per month.

Russia.—Personal licence, 5*l.* 5*s.* 6*d.*; and for firms represented, 15*l.* 16*s.* 7*d.* There are also further small provincial charges.

Switzerland.—Licence issued gratis for legitimate business.

United States.—No licence.

From the figures given it will be seen that the licences of South Africa exceed the total licences charged by the remaining portions either of the British Empire or even the whole world.

South Africa, in view of its small white population, has a limited trade area as compared with other of His Majesty's Dominions, whilst it has the highest cost of living and imposes on oversea representatives the highest trade licences.

We have approached the Government yearly since 1908 to reduce these high licences, and were promised by Mr. Hull, during his term of office, that a Government Bill should be introduced reducing them. It did not, however, materialize. A Licences Consolidation Bill, framed on the findings of the Financial Relations Commission, has been drafted by the Union Government. Appended is a copy of letter addressed to the Minister of Finance and copy of his reply.

We would also point out the enormous expenses incurred in travelling this country. From a careful computation, an agent's expenses for railway fares, railway excess baggage charges, hotel accommodation, offices, sample rooms, shipping agents, dock dues, cartage, &c., is 750*l.* The estimate for domestic purposes is 400*l.* yearly. This money circulated by agents is a considerable sum and is spent out of income derived entirely from oversea manufacturers whom they represent and not from a profit on goods sold. Thus, these high charges not only press heavily on the representative, but tend to act as a restraint on trade.

Annexure.

Copy of Letter, dated 22nd January, 1914, addressed to the Honourable J. C. Smuts, Minister of Finance and Defence.

(*Begins.*) I beg leave to bring to your notice the question of licences imposed on agents of foreign firms.

During Mr. Hull's tenure of office as Minister of Finance, this question was considered very fully by him, and he assured this Association that the question of licences would be gone into by Parliament and redress granted.

Last year we were again assured that a Bill would be brought before the House, but, owing to great pressure of other matters, no opportunity was found for its introduction.

The licences at present in force for agents of foreign firms are as follows:—

Cape Province.—Yearly, 50*l.* For each additional firm represented, 5*l.* Maximum licence, 100*l.*

Transvaal.—Yearly, 10*l.*

Natal.—Yearly, 10*l.*

Orange Free State.—Quarterly, 5*l.* (Three months from date to date.)

and we feel sure you must recognise the inequality of these charges, which in the aggregate are more than a British agent would be called upon to pay in licences in a tour of the world.

We understand that a Licence Consolidation Bill is already drafted, in accordance with the Financial Relations Commission, and my Council will be glad to have your assurance that the above Consolidation Bill will be brought before the House during the coming Session. Awaiting the favour of your reply and thanking you in anticipation. (*Ends.*)

Copy of Reply, dated 27th January, 1914, received to above Letter.

(*Begins.*) I am desired by the Minister of Finance to acknowledge receipt of your letter of the 22nd instant, and to inform you that, if circumstances permit, it is the intention of the Government to introduce consolidating legislation on the matter referred to during the coming Session, but it is not possible at this date to give a definite assurance to this effect. (*Ends.*)

3159. **(Chairman.)** The gist of your evidence is that you desire a reduction in the cost of existing licences?—Yes. As an agent for foreign firms.

3160. And you have brought evidence to show that the existing licence is higher in this country than in any other British possession or foreign country?—Yes, all the world put together.

3161. And under your present law the licence is different in each of the four Provinces, I understand?—Yes, it is 50*l*. in the Cape Colony if you are domiciled, and twice as much if you are not domiciled.

3162. You have made representations to the Union Government on this subject?—Since 1908.

3163. What satisfaction have you got?—Before 1908 Mr. Merriman wanted to double this licence. He was under the impression that we were not domiciled here. Then he reduced the licence to what it is at present. It is 50*l*., but in the Transvaal it is only 10*l*., and we do as much business up there as we do here, in fact more.

3164. Have you got any hope of obtaining a consolidation and a reduction of the fee?—We know that an Act has been drafted about fifteen months, but what we want to do is to get that Act brought before Parliament during the present Session, as otherwise, if it is not passed before next year, we will have to pay that licence again. The trouble is that this is a licence for foreign firms and we are not foreign. We represent British firms. We shall be perfectly satisfied if it is a Union licence, but it has been issued for the last two years as a Provincial licence.

3165. You are anxious that we should support you?—Yes.

3166. Have you anything of special interest to tell us about the development and progress of British manufactures over here?—The British manufacturer is losing ground in this country.

3167. Owing to what?—To the enormous amount of duty on the imported article, and more so on account of the preferential railway rate for goods of local manufacture. Take, for instance, articles such as soaps, candles, and syrups, which are made here, a great preference is given by the railways on those goods.

3168. Given to whom?—The Colonial manufacturers. We were given to understand by the Government that when Parliament met last year they were going to do away with this preferential rate and increase the duties. In other words, there is some confusion on account of the difference which arises. For instance, a man is manufacturing syrup and wants to sends it from Durban to Charlestown and another man is manufacturing in the Transvaal and wants to send it down to Charlestown. Both of them want a preference rate, but in opposite directions. Then in sending goods from here to Johannesburg or from Durban to Johannesburg, if you send them from Cape Town you have a preference rate on the railway, and Cape Town does not come off very well as compared with Natal with the shorter distance.

3169. Have you discussed this matter with the British Trade Commissioner here?—No.

3170. Would he not be a suitable authority to refer to?—I think we have given him information on these matters from time to time.

3171. Would he not be in a position to assist you?—The Government seem to be on the other side of the fence. They say that we want to assist the Colonial-made article.

3172. But the Trade Commissioner here, to assist the imported article, would he not be the best channel through which to approach the Government?—We have never approached him on that subject, but we have given him other information; we are a body of men who represent different manufacturers.

3173. I would suggest that you approach him?—Yes.

3174. **(Mr. Tatlow.)** You say that you deal in imported soaps?—Yes.

3175. And you say that a preference rate is given to the locally-made article?—Yes.

3176. Is there any locally-made soap in Cape Town?—Yes, Lever's.

3177. And they get a lower rate to the interior?—Yes.

3178. The imported article is invoiced from Cape Town. It is not a through rate from oversea to the interior?—No.

3179. About what is the difference for, say, a distance of two or three hundred miles?—From three to four shillings on a hundred pounds box of soap.

3180. **(Sir Jan Langerman.)** Do you think that it is unreasonable on the part of the Government to foster local manufactures by giving a lower rate?—Well, as a representative of home firms, I think we should meet each other, considering this is a British Colony.

3181. Do you not get an advantage over foreign goods imported here as representing British manufacturers?—No. Of course, there is a slight preference given to British manufactures over foreign manufactures, but the preference is not so great that it will cope with the enormous duty we have to pay. The duty on articles in the grocery line is practically 25 per cent. on the home cost.

3182. You say that this licence is higher than in any other part of the world?—Yes.

3183. Do you come into competition with the existing trades in the country?—No, we simply take indents for the home manufacturer.

3184. From the merchant himself?—Yes, from the wholesale merchant.

3185. Is there a merchant's licence in this country?—Yes, an importer's licence.

3186. What is that licence?—When you have imported 1,200*l*. it is 10*l*. per annum.

3187. How does it compare with the licences which are charged elsewhere and which you say are less than here?—As regards the importer's licence I could not say. We are simply dealing with the traveller's licence. We are really representatives of the home manufacturer and we find that the licences we have to pay in South Africa all together are more than what a representative of a manufacturer at home would have to pay to travel all over the world. For instance, in the United States there is no licence required.

3188. Can you tell us what the reason for such a high licence was?—Yes, Mr. Merriman wanted to have it imposed at the time the Income Tax was raised in 1908.

3189. Is it for raising revenue?—Yes.

3190. You cannot tell me if the importer's licence is higher than elsewhere?—No, we have nothing to do with that. We simply carry samples with us and sell on indent through London buying houses.

3191. Would not your licence bear any relation to the importer's licence?—No.

3192. Because, if the importer's licence is higher in this country than elsewhere, you cannot complain if your licence should be higher too?—No. Ours is given to enable us to ply our calling and to take orders from wholesale merchants. The merchant's licence is on a sliding scale according to his turnover.

Mr. W. J. Laite, General Secretary to the South African Manufacturers' Association, called and examined.

3193. **(Chairman.)** I understand you are General Secretary to the South African Manufacturers' Association?—Yes.

3194. What are the points which you desire to bring before the Commission?—The points are set out in my statement, which is as follows:—

Statement relating to Manufacturers in South Africa.

Before attempting to frame answers to the list of questions submitted to the South African Manufacturers' Association by the Dominions Royal Commission, relating to manufactures in the Union, it is

deemed advisable to present a statement as to the general industrial conditions which exist in South Africa. From the questions asked, it is evident that the adoption of such a course will prove of service to the Commission, as it is essential that an enquiry of the important nature contemplated in the terms of reference should be founded upon a sound knowledge of the economic conditions of each separate Dominion or State.

In comparison with other Dominions of the Empire, South Africa may be said to be industrially in an embryonic state. Many of the manufacturing industries about which the Commission seeks information are non-existent, some are in a crude stage of development, whilst others may be said to have "arrived" commercially in so far as they are able to hold a goodly share of the local market by the aid of certain restrictive tariffs under which they are operated. It is somewhat difficult for those who are unacquainted with South African history to understand why the country, speaking industrially, lags so far behind her sister Dominions. The explanation is two-fold. In the first place no country in the world has been so handicapped in the industrial race of nations. Prior to May, 1910, territory which was geographically one country was artificially divided and was cursed with eleven different forms of government; and an account of them all in their various aspects—administrative, judicial, financial, and political—would fill an encyclopedia, without assisting the Commission. A number of these areas were under the control of the British Colonial Office, as many are to-day; but, omitting these from consideration, South Africa possessed four separate Governments, with four separate Parliaments, legislating, according to their lights, for the well-being of that portion of our common territory which had been relegated to their control. Experience having demonstrated the need for a common fiscal policy, a makeshift arrangement was brought into being under the somewhat grandiloquent title of "The Customs Convention." This Union, whilst providing for internal free-trade between the four self-governing Colonies, agreed upon the imposition of certain duties for revenue purposes, and in 1906 accepted the principle of protection by imposing duties of a restrictive nature upon certain goods in order to encourage the development of manufacturing industries. The system was only satisfactory from the fact that, whilst it existed, the various Governments were prevented from embarking on a policy of commercial hostility towards one another, but, as it was impossible to count upon a longer period of fiscal tranquillity than twelve months—which was the time-notice required for withdrawal by one or all parties to the Convention—manufacturers found it inexpedient to risk capital in erecting buildings and laying down plant which might, owing to a change in policy, be rendered valueless. The policy of the Customs Convention was fixed behind closed doors, by certain Ministerial representatives of the various Governments, and was then submitted to each local Parliament for ratification. The detail was not open for discussion—it had to be accepted or rejected—and the elected representatives of the people were powerless. A refusal to ratify on the part of any Parliament would have plunged all four Colonies into an internecine war of tariffs, with all its attendant evils, and on the principle of choosing the least of two evils, ratification followed as a matter of course. A meeting of the Customs Convention usually degenerated into a war of wits, and the victory was with the strong. It was impossible to contend for principle, and the conflict of interests between the inland and coastal States being so great, expediency and compromise had perforce to govern every decision. It will at once be seen that under such circumstances, without stability or continuity of fiscal conditions, industrial development in South Africa has been very severely handicapped.

The second contributing cause is the lack of trained skilled labour. A manufacturer opening business in South Africa has necessarily to import his skilled labour, and afterwards to undertake the training of such local labour as is obtainable. Until a few years ago, little or no effort was made to train technically the youth of the country, and, as skilled labour is always migratory in a new country, ever seeking new openings at higher wages, the problem of keeping the factory running and of producing articles of a standard quality at a cost which would enable them to compete with similar goods produced oversea under totally different economic conditions, has been a hard one for manufacturers to solve, and it has been responsible for closing down many promising ventures. Generally speaking, wages are from 30 per cent. to 50 per cent. higher in South Africa, both for skilled and unskilled labour than they are in Europe, whilst administration and other overhead charges are also proportionately higher. On the other hand, the industrialist in South Africa has considerable advantages due to climate, light, &c., which count in maintaining the health of workers.

Another contributing cause to the slow development of manufacturing in the country is lack of capital. South Africa, in popular estimation, has been so long considered pre-eminently a land of gold and diamond mining, and has been so dominated by those interests, that its other activities have been practically ignored by British capitalists, and as a result an utterly false appreciation of its economy has become current. Had this not been so, and with the abundance of raw material exported annually to the world's markets, South Africa would, ere this, have become a great producer of manufactured goods. She has immense deposits of iron ore, the value of her wool and mohair is admitted, and with an enormous supply of hides, with plantations of wattle, she can produce leather in quantities and of a quality second to none.

Before closing this general statement, it may be interesting for the Commission to know that, although no reliable or official figures are available, it is estimated by those best capable of judging that to-day there are between 30,000,000*l.* and 40,000,000*l.* sterling invested in manufacturing industries in South Africa, excluding the amount of capital invested in the Government railway and harbour workshops, &c.

Answers to Questions.

Question 1.—What was the total number of factories of each class carrying on operations on January 1st (or other convenient date) in each year from 1901 onwards? What was the number of persons employed (distinguishing men, women, and persons below 18 years of age), and what was the annual output of each class of product?

Answer.—No reliable official figures are available of later date than the Census of 1904. In February, 1913, the South African Manufacturers' Association prepared a report upon the industrial conditions of the country in relation to the Union tariff, and an attempt was made to secure the latest information from the Census Returns for 1911. At that time the returns were in the hands of the Government printers, but in response to enquiries by wire certain figures were supplied, but they were obviously incorrect. A second telegram to the Census Department, drawing attention to the errors, elicited the following reply:—

Union of South Africa,
Pretoria, Census Office,
8th January, 1913.

Sir,

With reference to your telegram to Mr. Canham, which has been forwarded to this office for reply, I regret to inform you that the Industrial Statistics collected in connection with the 1911 Census cannot be considered as reliable.

Many of the returns were unsatisfactory and, judging from the totals, a number of establishments have been omitted.

Diamond mines, collieries, and railway workshops were included among the Orange Free State's industries in 1904. These were not included in 1911, the mines being shown separately.

I have, &c.,
A. W. Carruthers,
Acting Director of Census.

W. J. Laite, Esq.,
68, Shortmarket Street,
Cape Town.

Under these circumstances it is only possible to submit the figures from the Census Returns of 1904, which are as follows:—

Industries.	Number of Institutions.	Value of Machinery and Plant.	Value of Material Used.	Value of Articles Produced.
		£	£	£
Aerated water factories, &c.	298	267,059	219,508	531,410
Asphalters and paviors and bottlemaking works	6	4,982	11,472	40,830
Beer-bottling and carbonic acid gas works	3	2,977	8,487	16,250
Blanket manufacturers, dye and cleaning works, &c.	16	7,077	1,696	8,420
Boot and shoe factories	172	9,936	72,279	124,034
Bread, biscuit, and confectionery works	292	148,664	988,857	1,435,467
Breweries and distilleries	54	417,301	570,925	1,166,574
Brick and tile, glass-bevelling and silvering, clay and earthenware works.	351	364,984	207,332	719,526
Builders and contractors, carpenters and joiners	475	186,763	1,816,953	3,223,596
Cabinetmakers and upholsterers, woodcarvers, basket-makers, cork works, bedding and mattress-makers, &c.	128	25,797	140,780	286,324
Cement and lime works, quarries, and monumental works	154	85,794	134,382	313,341
Chemical works, match factories, tar works, and salt pans	72	81,897	94,361	173,577
Coffee, chicory, and tea factories	19	23,200	73,985	158,091
Dairies, creameries, cheese, and margarine factories	23	28,676	62,647	84,826
Die sinkers, engravers, and india-rubber stamp-makers	17	3,927	2,855	12,645
Dynamite factories and gunsmiths	10	596,425	325,390	472,845
Electrical engineering works	33	694,792	65,365	244,258
Fish-curing and preserving works	16	8,625	16,768	24,469
Fruit preserving works and jam factories	6	25,500	93,500	156,500
Gas (acetylene and coal) works	6	392,630	107,940	170,550
Grain mills	359	506,566	2,759,414	3,305,179
Ham and bacon-curing works	3	7,579	34,100	42,250
Harness and saddlery makers	123	13,621	74,027	150,627
Ice factories and cold storage works	40	164,865	117,775	100,043
Iron and brass foundries, tin and copper smiths, lead pipe factories, wire workers, makers of tools and implements, gates and fencing material.	267	294,359	528,687	1,033,521
Jewellers and watchmakers	84	9,057	18,211	55,773
Laundries	23	7,508	9,552	51,262
Motor and cycle works	75	7,486	26,920	62,150
Picture-frame makers	20	1,190	13,582	29,343
Printers, bookbinders, and cardboard-box makers	192	448,006	286,181	1,131,853
Sail, tent, and tarpaulin makers	14	9,855	32,164	46,999
Saw mills, cooperage, turnery, and spoke works	141	258,183	407,506	805,834
Ship and boat builders	2	15,213	1,717	6,267
Soap works, bone mills, &c.	12	12,851	55,310	67,189
Sugar factories	34	373,167	145,923	418,544
Tanneries and wool-washing establishments	38	79,053	297,616	380,980
Tobacco factories	85	51,429	291,236	415,210
Vinegar, sauce, and pickle factories	6	1,350	3,682	7,654
Waggon and carriage builders, blacksmiths, locksmiths, &c.	595	147,065	528,332	994,069
Unenumerated	514	20,869	559,406	824,110
Total	4,778	5,806,278	11,206,823	19,292,690

It may also serve a good purpose to add a summary showing the relative position of each Province, and the value of its industries:—

Colony.	Number of Institutions.		Value of Machinery and Plant.		Value of Material used.		Value of Articles Produced.	
	No.	Per cent.	£	Per cent.	£	Per cent.	£	Per cent.
Cape Colony	2,527	53·0	2,280,336	39·0	5,843,593	52·0	9,040,579	47·0
Natal	749	15·0	1,408,342	25·0	1,892,408	17·0	3,683,608	19·0
Transvaal	1,353	28·0	1,920,471	32·5	3,247,611	29·0	6,289,402	32·5
Orange River Colony	149	3·0	197,129	3·5	223,211	2·0	279,101	1·5
	4,778	100·0	5,806,278	100·0	11,206,823	100·0	19,292,690	100·0

Since these figures were published, a number of new industries have been started, and others have developed. These include the manufacture of brushes and brooms, cloth weaving, diamond cutting, box making, basketware, cork manufacturing, groceries sundries, pickles, chutney, &c., glass bevelling and engraving, lead pipe works, photographic mounts and materials and papers, ferro-prussiate papers and linens, &c., pottery and tile making and tinware of all kinds.

No figures are available as to the number of persons employed, but the Government, through the Department of Commerce and Industries, has made an abortive attempt to secure such information. For the information of the Commission, I attach a form,* marked "E 18," which was distributed freely through the country, but being a voluntary document, issued without legislative authority and unbacked by penalties for non-attention, numbers of manufacturers refused to supply the information asked for, or allowed the matter to go by default. Certain figures were ultimately published by the Department which were absolutely incorrect, and the South African Manufacturers' Association advised its members in future to refuse all such information until it was made obligatory by law for every manufacturer to supply the details demanded. This Association has frequently urged the Government to pass a compulsory Industrial Census Act, as it has always recognised the value of correct statistics.

Question 2.—Please say is there any tendency for any of the above industries to expand or decline? What are the chief causes operating to produce the result?

Answer.—Since 1906, when duties of a restrictive nature were put upon certain goods, there has been considerable development in the particular industries affected, viz.:—Printing, jam making, confectionery, milling, cigarette and cigar manufacturing, soap and candle making, harness and saddlery, playing card manufacturing; whilst a number of small industries have been brought into being under the *ad valorem* duty of 15 per cent. On the other hand, very little progress has been made in such trades as engineering

* Not printed.

and its allied interests, owing to the difficulty of competing with oversea products, which have the advantage of cheaper labour, highly organised factories, and a free market to operate for superfluous output.

Question 3.—What other industries could suitably be developed to work up raw materials which are already produced in the Union, or could be produced or procured under profitable conditions? What obstacles, *e.g.*, lack of (*a*) capital; (*b*) labour; (*c*) means of transport, have hitherto prevented the development of these industries?

Answer.—There are very few industries which could not be operated successfully and profitably in South Africa, providing suitable economic conditions are obtained. Those for which the raw material exists in abundance in the country are woollen manufacture, tanning, boots and shoes, iron, diamond cutting, jewellery, wattle extract, clothing, cereal food products, &c.

The chief obstacles are (1) lack of capital; (2) lack of skilled labour; (3) need for cheaper facilities for getting goods from the point of production to the point of consumption, which can only be remedied by the Government introducing the system of "commodity rates" on the State Railway; (4) protection by means of a restrictive Customs tariff against the products from oversea.

Question 4.—What Government assistance or encouragement is given to the manufacturing industries, *e.g.*, by means of loans, bounties, preferential railway rates, Customs duties, &c.? Do local authorities encourage the establishment of factories by granting temporary exemption from rates, or according other privileges?

Answer. — The only assistance or encouragement given by the Government to manufacturing industries is through Customs duties, which applies to a limited number of industries, a detail* of which is attached to this statement, showing the duties at present levied and the duties demanded by manufacturers. No loans or bounties are granted, neither are they sought. In a few instances preferential railway rates are granted in the Cape and Natal Provinces; these are not general throughout the Union, and it is understood that when the Union Tariff is revised they are to be abolished.

It is understood that the Durban Municipality, possessing certain lands, grants sites at low rates to manufacturers, and also undertakes the supply of power, light, and water at specially reduced fees to industrial concerns for a limited period after commencing operations. The Cape Town Municipality under its new ordinance have taken powers to grant special facilities in the way of cheap water and power, but, having no lands, nothing can be done in the way of granting sites upon special terms. No case where special facilities have been granted has ever been brought to the notice of this Association.

The undersigned, having been authorised by resolution of the executive committee of the South African Manufacturers' Association, will be prepared to attend the Commission as a witness, to answer questions to the best of his ability, it being the desire of the committee to render the Commission the best assistance in its power.

I am prepared to give any further information that lies in my power.

3195. **(Chairman.)** We have all read your statement with interest. What is the total capital invested in your industries?—I can only give that approximately, but it is estimated by our Association to be between 30 and 40 millions sterling.

3196. What is the number of hands which you employ?—There we are absolutely in the dark. We have tried for many years past to induce the old Cape Government and, later, the Union Government to have an industrial census taken, but we have been unsuccessful.

3197. Your Association does not compile statistics itself?—No, because all the manufacturers do not belong to our Association. We have 331 members. They represent the larger firms, but a great many firms all over the Union do not belong to our Association.

3198. Can you say what percentage your membership represents to the total?—There is another association in Natal which represents about 150. There is another in the Transvaal which represents 147, I think. Of course, this is the largest manufacturing centre in the Union, and we have the largest number of members.

3199. You say that the chief obstacle to the development of your industries is, first of all, the lack of capital?—Yes.

3200. Why is that?—Simply because the capitalists of Europe have never had reason to have confidence in the industrial possibilities of this country.

3201. Have you not local capital?—We have no new capital except what is brought from oversea.

3202. Has not capital accumulated in South Africa?—Yes, but it is largely invested in property, in mortgage bonds, and not in industrial concerns.

3203. It seeks a certain and not a fluctuating return?—Yes.

3204. Is there any tendency on the part of local capital to interest itself in industry?—Yes. Where we have had the advantage of restrictive tariffs we have been able to get capital to develop our industries, but it is purely a question of security for the capital.

3205. You also allude to the lack of skilled labour?—Yes.

3206. What is that. Do you mean white?—Yes. There is no skilled coloured labour in this country. When we refer to skilled labour we mean the high type of artisan. We always have to import him.

3207. I suppose you say he is very dear?—Yes, we pay, as you will see later on, very high wages for skilled artisans. The figure varies from 30 to 50 per cent. in advance of the wages paid for similar labour in Europe.

3208. I think that figure is even less than the figure which was given in the report of the Economic Commission?—Yes, but I have tried to err on the right side.

3209. Do you see any prospect of that expense being diminished in future?—No, and I do not think that it would be to the advantage of the country if it could.

3210. Do you say, as regards coloured labour, that it cannot be considered in any way as skilled?—No. It largely depends, of course, on the definition of the word "skilled." It requires a certain amount of skill to boil sugar, but we would not consider sugar-boiling to be a skilled occupation. We would call an engineer a skilled man. There are various branches of the confectionery trade where labour is introduced of a semi-skilled character, but which could never be called skilled in the ordinary sense of the word. We should call it labouring work, and it is done by coloured men.

3211. And anything higher than that is not within the competence of coloured labour?—We have no proof. The nearest approach to that condition is in cabinet making. There you get the semi-skilled carpenter, but, generally speaking, the higher-grade work is in the hands of whites.

3212. Have you ever endeavoured to adapt native labour?—No, because our object has always been to employ white labour as far as possible.

3213. Your action has always been rather in the direction of restriction?—We have simply let the thing take its natural course. We prefer white labour where we can get it.

3214. You also allude to the cheaper facilities for getting goods from the point of production to the point of consumption, which can only be remedied by getting the Government to introduce commodity rates on the railways. I suppose you mean preferential rates?—No. The difference between the two is this, that the preferential rate only works one way. That is against the imported article going inland. Let me give you an illustration. We have in the Transvaal a large pottery factory in which something like 150,000*l.* has been invested. It is established there because the raw material is there. Now it is impossible for consumers in Cape Town, for instance, and other coast centres to use the products of that factory, because the cost of railage is excessive and indeed prohibitive. As a matter of fact, it is possible to purchase a set of toilet ware in Staffordshire and pay the freight to Southampton and the terminal charges both ways, also the sea freight, and land

* Not printed.

those goods in Cape Town cheaper than the cost of railage on the articles if sent from Johannesburg to Cape Town. Now we say that, this being a State railway, it should be used for the development of the resources of the country, and, our population being so sparse, it is essential that the article should be carried from the point of production to the point of consumption at whatever price the article will bear to enable the promoter of the factory to have the benefit of the largest market obtainable. To-day the market for Transvaal pottery is limited to the Transvaal itself.

3215. You would fix the railway rate at whatever figure the article will bear, irrespective of the cost of transit?—Yes. That is the system supported by Hugo Meyer and it has worked admirably in America and Canada. It has been utilised by competitive railways because they have secured far more freight by it. In Great Britain a similar principle has been recognised in connection with the sugar trade. As you may perhaps be aware, a Royal Commission sat on this question some time ago and that Commission decided that it was a good system. There was some opposition from the people interested in the sugar business in Liverpool, but the Royal Commission decided that it was in the interests of the consumer that this system should operate in order that the consumer could get his article so much cheaper.

3216. Your commodity rate differs from the preference rate, first of all, in working both ways and, secondly, in being based upon such a figure as will increase the traffic?—Yes.

3217. Is the local industry granted facilities by the Government or by local municipalities in regard to provision of land at low rates or by the provision of cheap power and light?—I have answered that question in my statement. I state that the only municipality that is able to offer any facilities in this direction is the municipality of Durban, because that is the only municipality which owns land. Cape Town has taken powers to assist industries by reducing the cost of electric current for power and water charges. But I know of no case where that has been done.

3218. In what towns can you get electric power?—In all the important towns of the country.

3219. At what rates?—It varies. In Cape Town lighting is 7*d*. and power is 3*d* per unit. In Durban it is very much cheaper. I think lighting is 4*d*. or 5*d*. and I believe they supply power at about 1½*d*. In East London the charge is somewhat higher than in Cape Town and the same in Port Elizabeth.

3220. Those are all fairly high prices for an industry to have to meet?—Yes, they are.

3221. **(Mr. Lorimer.)** It is rather unfortunate for us that you are unable to give any statistics as to the number of industries later than 1904. Have you yourself any idea, broadly speaking, to what extent these have increased?—Are you now referring to the Cape Province or to the whole Union?

3222. To the whole Union.—It is impossible to give even a guess, but we know there has been a considerable increase because of the number of new firms that have started since 1906 when the restrictive tariff was introduced. In this town alone, we have the United Tobacco Co., with a very large capital, which was brought into existence as a result of having a heavy duty put on the manufacture of tobacco and cigarettes. The same thing applies to other centres. In Port Elizabeth you have a large number of firms representing a capital of nearly 500,000*l*., which has been laid down there during recent years to develop the leather and boot and shoe industry. There are some industries the increase of which is more marked than others.

3223. And the leather trade is one of them?—Yes.

3224. And you say there is probably between 30 and 40 millions of capital now invested in industrial enterprise in this country?—Yes.

3225. Has that capital been provided by South Africa?—Only a portion. The larger proportion has come from oversea.

3226. Can you say, speaking broadly, whether it has been a remunerative investment?—I think so.

3227. We are told here that it is desired to have a properly prepared industrial census. What answer has the Government given to your representations on that point?—We have had nothing from the Government.

3228. You say that the Association has frequently urged the Government to pass a compulsory industrial census act? You have had no answer?—We have had an abortive attempt made on the part of a department called the Department of Commerce and Industries, which is now practically moribund, to secure some returns, but the attempt was a purely voluntary effort. A certain form was sent out to a list of manufacturers. The list was anything but complete and a large number of manufacturers simply refused to give the information because, in the first place, there was no guarantee that it would be treated as confidential. It was looked upon as an attempt on the part of the authorities to get behind their backs with some ulterior motive. There was no law to make it compulsory on every manufacturer to give the information, and, therefore, it was concluded that it would be unfair to expect one individual to give information that his neighbour was not obliged to give. But the worst feature of the case was that the Government, through this particular department, did publish certain figures which had been collected and those figures did the cause of industrialism in this country a great deal of harm, because they were incorrect. For instance, they represented that the capital invested in industrial enterprise had increased while the use of raw material and the output of goods had decreased during the same period, which was, of course, absurd.

3229. Would you say that the amount of capital invested in industrial enterprise is in proportion to the increase of population more or less?—There has been no increase of population comparatively speaking for the last ten years. The white population has decreased because we have not had sufficient avenues of diversified employment.

3230. You can do no export trade?—No, except a small amount with German South-West Africa.

3231. What you want is to encourage your industrial enterprise above all things?—Yes.

3232. **(Mr. Campbell.)** Is coloured labour used in your factories to any extent?—Yes, very largely.

3233. Does it adapt itself to skilled processes?—No. The experience is that it does not adapt itself; it has not the capacity.

3234. Is that an incurable trouble?—That is common experience. I have gone into this question very deeply from time to time and I have a report here which I submitted to the Government last year. The experience of the manufacturer is that the coloured man is a very good asset for unskilled or semi-skilled work, but higher than that he is not of much value.

3235. Does he adapt himself to machine work?—Yes, to a certain extent, if it is plain straightforward work such as cutting planks in a saw-mill.

3236. Is the match-making industry of any size in this country?—Yes, it is very large.

3237. It is not included in these returns. Has it been planted in all the Provinces?—We have one factory here and one at Kingwilliamstown, and also one at Durban.

3238. Can they manufacture matches here for export?—Only for home consumption. Of course, there is a heavy tariff on matches and they have a monopoly.

3239. In regard to ham and bacon-curing works, I see they turn out a total of 42,250*l*. What is the reason that South Africa does not manufacture more bacon, seeing that she grows the corn?—That is largely accounted for by the fact that the farmer has never considered it worth his while to go in for breeding the right pig. I may mention that some Johannesburg capitalists are operating an industry which has been started at Wellington. These people are importing stock for the purpose of breeding suitable pigs and making bacon. They anticipate that in a few years' time they will be able to supply the local market.

3240. You think that a bacon industry ought to be very profitable in this country?—Yes. In discussing this subject I would like to say in conclusion that, in connection with local industries, this country is totally different from any other country in the world. It has been cursed with a set of conditions such as no

other country has had to face. It has never had an opportunity of developing on sound scientific lines in the same way as Canada, Australia, or New Zealand. In the first place its territory, which is geographically one, has been split up into 11 different forms of government. We have had to work under a Customs Convention that was only a make-shift arrangement to meet a set of conditions that nobody in particular was responsible for. Now, it stands to reason that when you have four self-governing Colonies, and a number of Colonies controlled from Downing Street, all with their own various policies and ideals and methods of working, without having any regard to their neighbours' necessities, no defined policy of development could have been put into operation successfully. If it were decided to prosecute a campaign of agricultural or industrial development in that part of the country where agriculture or manufacturing was most fitted for expansion, that proposal would probably be opposed by the mining element or other people who were interested in securing different fiscal conditions. The advent of Union has given us the first opportunity we have had of being able to work out our salvation economically. The Government has done very well, but it has not yet had time to complete its work. From a very close study of the conditions of South Africa, I do not think there is any other country in the world which offers the industrial possibilities of this country when we have had a chance of putting our house in order.

3241. And the reason why the hog has not gravitated towards the corn is——?—Because he has not been here.

3242. And I suppose much the same thing applies to butter?—I think the reason for the laxity or lack of development in the dairy industry is largely accounted for by the fact that in days gone by it has never been the policy of the Government to provide the necessary equipment to enable the farmer to get his products from the point of production to the point of consumption. The consequence has been that we have had, from time to time, instances brought to our notice where butter produced at Darling, which is a place about 50 miles from here, has been selling there at 6*d.* a lb., whilst at Cape Town 2*s.* 6*d.* a lb. has been charged by the retailer.

3243. That is largely due to the want of co-operation in manufacture?—Yes, and to the lack of proper railway cold-storage facilities.

3244. I suppose the main difficulty is that the manufacture has been left in the hands of small farmers?—Yes.

3245. But I understand that more assistance is now being given in the direction of co-operation?—Yes, and it is succeeding very well.

3246. **(Chairman.)** Your complaint is, I understand, mainly as to the absence of industrial statistics?—Yes.

3247. What department would it come under?—That is largely a matter of administration, but I think it should come under the Minister of Industries.

3248. You consider that statistics would be of great value?—Yes, not only to South Africa but to the Empire. I should like to point out in regard to this coloured question, one favourable feature, to which we attach a great deal of importance and that is this, that coloured labour is indigenous to the country. It never moves away, whereas white labour is migratory. When there is a slump in one place it goes elsewhere where wages are better.

3249. Are there any other points?—No, unless you wish to ask any further questions. I would like to put in this publication,* which deals with the whole of the industries of the Union and which will give the Commission much information.

* Official Souvenir of the South African Industrial Exhibition, Cape Town, February, 1914 (Supplement to "South African Commerce and Manufacturers' Record," February Issue, 1914).

Kimberley, Wednesday, 18th March, 1914.

Mr. John Orr, Deputy Mayor of Kimberley and Member of the Kimberley Chamber of Commerce, called and examined.

(*For evidence of this witness on "Cables," see p. 75 of* [Cd. 7706].)

3250. **(Chairman.)** Do you represent the Chamber of Commerce?—No, but I am a member.

3251. Do you speak for yourself?—Principally for myself.

3252. I think you wish to speak in regard to competition between English and foreign goods?—Yes. I have a note here, "Articles in which foreign countries enter largely into competition with British manufacturers: Ladies' underwear, prints (German), flannelettes, shawls, cotton clothing (workman's), blankets (cotton), fancy goods (toys, dolls, &c.), boots and shoes. The percentage of imports, from personal experience, is as follows:—British, 85 per cent.; foreign, 15 per cent." If there is any question which the Commission would like to ask about these particular articles I have mentioned, I will be pleased to answer it. From my own experience, the percentage of imports is, 85 per cent. British manufacture, and 15 per cent. foreign manufacture. That refers to imports in my particular line.

3253. What is your particular line?—Drapery, clothing, and fancy goods.

3254. Are those proportions constant, or is the English proportion increasing or diminishing?—Well, in the case of the experience I have gathered from some of the large wholesale houses here, the percentage given is rather different from the figures I have here, inasmuch as they reckon about 10 per cent. of foreign imports represents their particular class of trade. But, as I said, I am not in the same line, they are more concerned in heavy goods.

3255. Confining yourself to your experience, is the proportion of British goods maintained?—I think so.

3256. Is it improving?—I could hardly answer that question, as I have not gone into the figures as to what obtained, say, twelve months ago. I am taking the figures more at the present date. I do not think it necessary to go back to compare the figures with those two or three years ago.

3257. What are the other points you wish to bring forward?—I have a special note with reference to the boot trade in this country, I will read it: "British goods have without question the largest sale in South Africa, and compared with foreign goods are able to hold their own for durability and style and workmanship. In American footwear there is a considerable trade done; this is not due to cheapness, compared with the British, but owing to the very deep, earnest, and determined resolution of American manufacturers to put an article on the market combining style and fit. The art of lastmaking, from a scientific point of view, is vastly keener in American than, up to recent times, in British factories, but we find British manufacturers are now alive to the necessity of this important fact, and are combining to produce the fit as well as the style. Cheap American and Continental goods are not in such demand, and comparatively few, as compared with British, are asked for by customers. There are people who will have nothing but an American boot, just as there are those who will have nothing but a British or Colonial article. At the same price, we are of opinion that British goods are fully equal to American." I may say that this is the opinion of one large firm here which deals largely in footwear in this district.

3258. **(Mr. Sinclair.)** You spoke of the competition between English and foreign goods, and you gave

the proportions as 85 per cent. and 15 per cent. Do not you think that is a very satisfactory proportion of British trade?—Yes.

3259. You were not putting it before the Commission as, in your opinion, an unsatisfactory condition?—No.

3260. **(Sir Jan Langerman.)** In connection with this 85 per cent. of English imports in the face of American competition, does it apply to the boot trade as well?—I do not know about the boot trade, whether it would be included in that.

3261. Would that be 85 per cent. as well?—Do you mean, would it include boots?

3262. Yes.—No, my figures do not include any American boots.

3263. You say that the British manufacturer of boots would get 85 per cent.?—Well, I am hardly in a position to give figures with reference to boots, but I should say, roughly speaking, 85 per cent. to 90 per cent.

3264. I am referring specially to the boot trade, where you said there was a larger competition?—As I mentioned in connection with this note which I have read, this is from a gentleman who is more conversant with the American boot trade than I am myself. I cannot very well give the proportions of the American boots as compared with British manufactures.

3265. Do the British goods enjoy any preference over foreign goods?—Yes, in the matter of duty, 3 per cent.

3266. I am thinking of this 85 per cent. of British goods. Do you think that is due to this preference or to superior manufacture?—I think, perhaps, it is due to both; most people in costing goods to sell at a certain price take into consideration the 3 per cent. rebate.

3267. As well as to superior manufacture?—Yes, there is always something characteristic about British goods and foreign goods. You can tell whether they are British or not by the appearance of them. Some people have a fancy for a certain article, not because it is British or foreign, but because it has taken their fancy and meets with their requirements.

3268. So, given the preference in favour of British goods, and also supposing that the British manufacturer can place on the market a better-made article than the foreign goods, there is no reason why the British trade to South Africa should not increase and the small margin of 15 per cent. be wiped out practically?—Well, I do not know about that; there are certain articles that the British manufacturer does not seem to be able to produce. There are certain lines which are established in this country. Attempts have been made by British manufacturers to get those particular lines, but they have not met with any great success.

3269. So that there would be very little chance of shifting the percentages?—I think there would be very little chance. I am speaking, of course, of lines that are largely used and not articles of fashion. These are staple articles of trade that people have got into the way of using.

3270. **(Mr. Garnett.)** Then the general conclusion that you have come to, from what you say, is that people will buy what they want irrespective of the country that produces it?—Yes, I think so, we are very seldom asked whether goods are of British manufacture or foreign manufacture, that does not often enter into the question.

3271. Generally speaking, goods have to fight their way into the market by their own inherent excellence?—Yes.

3272. You mentioned certain cotton manufactures in which there was competition; would you mind giving me those again. I think you said underclothing?—Yes, ladies' underwear. This only refers to a particular article that is made principally in Germany and Saxony that the British manufacturers do not seem to have come into the market with to any large extent.

3273. Do you think they have not specialised so much in those particular pieces?—No, I think they have not.

3274. What is the next?—German prints. These goods are principally consumed in the country by the natives and the Germans have got hold of that trade very well, so that it would be very difficult, I think, to take it from them.

3275. I think I am not incorrect in saying that up to a few years ago the English printing trade had been, more or less, in regard to design and finish, stagnant, is that not so—it had hardly launched out. What I mean to say is, that in finish and design it was not holding its own with German and French goods?—There may be something in that, but when I speak of these German prints, I am referring to the common article and not so much to what we call the article of fashion. Then, of course, there are foreign cotton goods that are manufactured on the Continent and which the English manufacturer does not seem to have made in large quantities.

3276. But is it then your personal experience that, of late years, the English cotton and calico printing trade in its higher branches has made considerable advances both in excellence of finish and also in artistic design? That is so.

3277. And you think that if they pursue that line there may be a further field in which they may extend their business?—I think so.

3278. What is the next item?—Flannelettes. This, perhaps, is not a large item, but there are a large number of flannelettes produced in foreign countries that are perhaps a little different in character from the ordinary English-made goods, and they do seem to have taken the fancy to a large extent; but here, again, of course, the British manufacturers have produced goods to compete with those articles that are more or less winning their way.

3279. I was going to ask that question, whether some years ago German flannelette in design and finish was of a much higher class than our own and whether our own manufacturers have not perhaps, to some extent, caught up with them?—Yes, to some extent I think they have.

3280. You said something about cotton blankets—are they in the class of cheap cotton blankets?—Yes, coloured and white.

3281. What is the next item?—Cotton clothing.

3282. What have you to say about that?—I think it will be the opinion of all who have experience that there is a large quantity of this cotton clothing, principally workmen's clothing, used in this country by the natives and workmen of a certain class, which is made abroad. Here, again, of course, we know that these articles have got a hold in the country, and it seems very difficult to oust them from their strong position.

3283. Can you say whether we are relatively losing ground or not?—I do not think we are losing ground. Most of the things I have in my mind are special classes of goods such as I have referred to. There have been articles brought forward which, to look at, you would say they were quite as good as the others, but certain brands have been on the market so long and are so well known to consumers that they will have those and nothing else.

3284. Would it be too much to say that, generally speaking, it is in the cheaper classes of goods that these foreign articles are most largely bought?—Yes, I think so. Speaking of woollen goods, I think the trade is very small.

3285. I am speaking of cotton goods.—Yes.

3286. Has any business been missed through English makers having to quote very long delivery?—That has not come to my personal knowledge.

3287. Because, as you know, the English manufacturers have been very busy?—Yes.

3288. Generally speaking, you think it is in the cheaper qualities of goods where the principal competition is?—Yes, and also in consequence of well-known brands that people are used to.

3289. Have you anything to say about foreign competition in woollens as compared to the English trade?—I think I could give from my own experience the opinion that there is a larger quantity of British woollen goods now used in South Africa than there was five or ten years ago.

3290. Then we have increased our trade?—I think so, from my own figures.

3291. **(Mr. Bowring.)** I think you led us to believe that in your experience you found that whereas in years gone by American and German goods had supplanted English goods, recently English goods had again come to the fore?—Yes, I think ground has been made up within the last few years.

3292. And that English manufacturers generally have shown a greater desire to meet the wishes of their customers, and so have increased their trade?—I think so.

3293. And you have no special cases to bring forward where English goods could be so altered as to give English trade a greater proportion than it has at present. Have you any specific instances?—I have no particular article in my mind at present. As I said before, the brand in certain articles has got a good deal to do with that question. People look on certain articles as standard articles, and will have nothing else.

3294. I suppose that when price and quality are about equal the Mother Country gets the preference?—Yes, in a good many cases.

3295. Sentiment, at any rate, would be in their favour?—Well, in some cases it would.

3296. Was it found, do you know, that American foot-wear flooded this market a few years ago in great quantities?—Yes, a number of years ago; I can remember that.

3297. How many years ago?—About twelve years ago.

3298. And since then you find the trade has rather gone back to the English goods?—I think a good deal of it has gone back, and I think that is due to the fact, as is pointed out in this paper, that the English manufacturers have woke up to the fact that there was a certain demand for a certain shape or fitting or a particular boot, and that they found it necessary to alter their methods in some respects and to design the style or fitting of the boot, or some aspect of the boot, in such a way that would appeal to the people, and especially those who had been in the habit of wearing American boots.

3299. And now in that particular line English boots compare favourably with American?—Yes, quite favourably.

3300. I suppose the same remark would apply to German cutlery?—Yes.

3301. English cutlery is now being produced as cheaply and as good as the German article?—I must say that I am not conversant with that particular trade; it does not come into my experience.

3302. Have you anything to add?—I have been asked to put in a letter as to the competition in certain other classes of goods.

[*Letter put in as follows.*]

Kimberley,
18th March, 1914.

Gentlemen,

We have the honour to submit a brief statement as regards the china, earthenware, and glass trades.

English China.—From what we observe, English china manufacturers appear to hold their own in better-class goods. There is a certain neatness in style and finish about the English product which appeals to the eye, and which is lacking in the Continental product.

German and other Continental manufacturers have entirely captured the market for cheaper grades of china. We are able to import a china cup and saucer, decorated with floral designs, at about the same figure as was paid for an English earthenware with a crude pattern.

The cheap badged ware, "A Present from Kimberley," appears to be entirely in Continental hands. We have often made inquiries from English manufacturers for this class of cheap ware, but have always been informed that they cannot make it.

Earthenware.—With regard to this branch, we should say that it remains almost entirely in the hands of the English manufacturer. The quality, price and style—especially of dinner ware and toilet ware—leave nothing to be desired. We don't know that the packing in this class of goods could be improved upon.

As already mentioned under the heading of china, the Continental firms have captured the market for cheap tea sets, cups, saucers, &c. They, the Continental firms, produce china goods at almost the same prices that English manufacturers ask for crudely printed earthenware.

Colonial-made Pottery.—These goods comparatively are well manufactured, but the output is like a drop in a bucket compared with the requirements of the country.

The contemplated rise to 30 per cent. duty would be a mistake, at least until this manufactory with a combination of others could supply the needs of South Africa.

The prices of both English and Colonial-made pottery are landed in Kimberley at almost the same cost.

Glassware.—English glassware, such as drinking vessels, tumblers, &c., is almost unheard of in Kimberley.

We conclude that the English manufacturers cannot produce at the price of their Continental rivals. We should say that 90 per cent. of all glassware coming to Kimberley is of Continental origin.

In heavier cheap glass a small trade is done in English glassware, perhaps 5 per cent. American glass may claim the other 5 per cent.

Vases, Ornaments—Glass and Otherwise.—These we buy solely from the Continent, as English makers do not appear to cater for this trade.

Packing.—Taking the trade throughout, the packing by Continental firms is superior. Take their tea ware, trinket ware, and fancy goods, each line is packed in parcels of half-dozens or one dozen, and is much easier to handle, to shelve, and to store generally.

Invariably English goods are packed loosely. Continental firms seldom charge for cases and packing. English firms invariably do.

J. Bradley & Son.

ORANGE FREE STATE.

Bloemfontein, Friday, 20th March, 1914.

Mr. W. Ehrlich, J.P., Vice-President of the Bloemfontein Chamber of Commerce, called and examined.

(*For evidence of this witness on "Railways and Harbours" see p.* 125 *of* [Cd. 7706].)

3303. **(Chairman.)** I understand you are Vice-President of the Chamber of Commerce here?—Yes, and a retired business man.

3304. You are good enough to give evidence on what subjects?—On the advisability of manufacturers in England establishing branches in these Colonies.

3305. Will you give us first the principle, and then add details as to the chief lines in which you think this could be done with advantage?—Of course, the question is really a general one. About two years ago, the Government here negotiated with one of the large carriage and wagon building firms at home to establish works in this country, in fact here in Bloemfontein, for the purpose of manufacturing rolling stock for the Government railways, also for Rhodesia. Whether the inducements were not sufficiently attractive, or for other reasons, I do not know, but the negotiations came to nothing. That made me think generally of the question of having branch factories in the Colonies so as to do away with the agitation which continually arises against the increase of Customs dues for the purpose of protecting or encouraging local industries.

Then we had two large British firms establishing works in this country—Messrs. Lever Brothers, Soap Manufacturers, and Price's Patent Candle Company. These are of great benefit to the country. Naturally, a large amount of capital is expended, and, furthermore, the article they make locally can be sold for considerably less than similar articles made in England. Levers' South African soaps are cheaper than the imported, and so are Price's candles. It seems to me that various benefits would be derived from that policy. In the first place, the cost of living would be cheapened. This was made the subject of a Commission of Enquiry lately, and it seems to me to be largely connected with the question of the establishment of manufacturing industries in this country. As long as we have to import everything the cost of living will be high. If we had local factories, a large amount of intermediate profits would be saved. At present I daresay there are always half-a-dozen intermediate profits to be made before the consumer gets hold of the article. If the factory was in the country, the only intermediate profit would be that of the retail storekeeper, who gets his supplies direct from the factory, and the article is bound to be cheaper. So even if the establishment of factories had to be encouraged by the Government, through bonuses or other forms of assistance, it would be an advisable step to take, in my opinion.

3306. **(Mr. Campbell.)** Do you think that, as far as the raw materials necessary for manufactures are concerned, South Africa is in a sufficiently sound position to manufacture against older countries?—Older countries generally import their raw materials—or a large proportion of them. Great Britain imports most of them.

3307. I am speaking of the distribution of coal for one thing?—It is sufficiently distributed.

3308. You have in your mind the manufacture of iron products largely, I presume?—No, not exactly. I have in my mind the manufacture of woollen articles and leather goods, and such-like commodities.

3309. Taking iron goods first, is there a distribution of coal and iron in the Union such that it could be profitably used for the purposes of manufacture?—In the Transvaal, coal and iron deposits are very closely situated, and as for iron and steel manufactures, a manufactory has already been started on the Vaal River, at Vereeniging, on the borders of the Free State and the Transvaal.

3310. In regard to the manufacture of wool, I understand that that can only be carried on extensively in colder climates, and not in warm ones: do you know anything about that?—No.

3311. Has any woollen manufactory ever been established in South Africa?—I think there was one many years ago at Pietermaritzburg, Natal, but it came to grief.

3312. What were the reasons that it did not succeed?—I do not know.

3313. How long since was that?—About fifteen or twenty years ago. It was probably before its time.

3314. You have established during the last few years, have you not, some industries, like that for the manufacture of candles, for instance?—Yes; candles and soap.

3315. And matches?—Yes.

3316. Are there any industries that you have in mind that you think could be successfully acclimatised besides those I have mentioned. Could you point to some industry that you think would give an opening for the employment of capital?—The tanning of leather, for instance.

3317. You produce the tanning material and the hides?—Yes.

3318. And, at present, is tanning at all widely carried on in the Union?—No, only at the coast near Cape Town.

3319. Do you know, or can you give any idea of, the value of the leather turned out in the factory?—No, we have no factories here.

3320. Has the local leather a good reputation?—Yes, for the commoner classes of work. Not for the best work, I believe.

3321. I suppose that boots as well as leather are imported into South Africa ready-made?—Yes, in large quantities.

3322. There is no great manufacture of boots here?—No.

3323. Is there any other industry besides the leather business to which you refer?—I mentioned the carriage works, because the material manufactured in this country, after having been stored in this country, is improved in value on account of the dry climate.

3324. But do you think that the encouragement of manufactures in South Africa, which, of course, would entail the expenditure of a large amount of money and require some assistance from the Government, is of such vital importance as the encouragement of agriculture?—No, the encouragement of agriculture is not necessary. It requires no encouragement. That is the natural occupation of men. The encouragement needed is only that which every man has—to make money. It requires no special encouragement, I mean from the Government, to help a man to go on to a farm and produce the products of the soil.

3325. Provided it pays?—Quite so.

3326. Does not the same thing apply to manufactures?—No; they require a large amount of capital, and different inducements, I should say. In agriculture, every man is for himself, to a large extent. But with manufacturing industries it requires a considerable capital outlay, and a large amount of labour and organisation.

3327. I do not know whether you have answered this question already, but apart from the imposition of protective tariffs, with which we have nothing to do, are there any means which you could recommend for the encouragement of manufactures in the Union? Is there any particular policy which you would like to put before the Commission?—The policy we have as a Chamber recommended is by protection through the Customs.

3328. Is there any other direction in which you suggest a step may be taken?—The only other means are bonuses on manufactured articles.

3329. **(Mr. Garnett.)** You have mentioned two large firms that have already established works here—Lever Brothers and Price's Patent Candle Company. Can you tell me what class of labour they employ?—Well, as far as Levers is concerned, they employ only white labour, except for the very rough work of loading, and so on.

3330. Can you tell me the character of the work that is done there—is any very high degree of technical skill required, such as you expect from the higher class of artisan?—It did not appear to me when I was there last year that they used much highly skilled labour. They have a large number of girls employed in packing soap.

3331. The process of making it is not highly skilled?—No.

3332. I suppose the same thing would apply to the kind of labour employed by Price's Patent Candle Company?—Yes.

3333. You may perhaps be aware that woollen and similar industries are highly specialised and technical industries?—Yes.

3334. And the people employed in them have to be very carefully trained. Can you say whether there is in this country an adequate supply of people—I won't say the trained artisan, because at the moment you have no industries—but assuming that a start were made and the necessary machinery imported and people brought out necessary to give the business a start, are you of opinion that you have a sufficient supply of the right kind of people who could be trained to these particular trades?—Yes, I think so.

3335. Where would they be found?—At present in the towns and on the farms. There are the younger sons of the farmers, who will very soon have to find other employment. The Government is establishing technical schools, so we are gradually training up young men for an industrial life.

3336. But that training would perhaps fit them more to take the position of overseers or managers, rather than skilled artisans working for a weekly wage?—Yes, but a large number are now working in Johannesburg for a weekly wage.

3337. And you think there is a sufficient number of that class to justify people starting industries here?—Yes, of course, you would have to bring out a few to act as teachers, but you would soon find sufficient material in the country.

3338. But I would suggest to you that if anyone established woollen mills in this country, for instance, he would not want to put up those mills as a kind of nursery, to nurse people into efficiency. He would want to start straight off and become an active producing unit. He would not be content in some near or far future to become a producing factor, and to enter the country and start work under those conditions?—Yes, I quite appreciate that. But at first he would have to bring out his workmen.

3339. And you are of opinion that there is existing a class in sufficient numbers from which an adequate supply of trained artisans could be produced?—Yes.

3340. They could be constantly recruited?—Yes

3341. There would be no falling off?—No.

3342. Do you believe that those who have been accustomed to a more or less free life in the country would be content to toil at the spindle and the loom?—Yes, I think so. I think there is a tendency even now for people to flock into the towns.

3343. You think that the attractions of town life will be quite sufficient?—Yes, and the necessity of earning a living. The earnings from agriculture are largely speculative, depending very much on the seasons. In the towns they have a more or less regular income, although it may be smaller. And then, of course, our native labour is a very great asset in regard to industries.

3344. **(Mr. Sinclair.)** What you advocate is that old established English firms should start branches of their businesses in the Union?—Yes.

3345. Is there any disposition on the part of the people of the Union themselves to start factories?—It seems not. Want of capital and want of experience probably keeps them from it.

3346. Take industries like those that have been started — candle-making and soap; was there not sufficient prospect of success and enterprise locally to make a start?—Yes, and small factories had been started, but only in a small way. But I think those firms I have mentioned must have brought out a large amount of capital in order to start on the lines they have, and our local men had not got that available.

3347. And you think it is better in the permanent interests of the Union that those industries should be started by outsiders, than that you should wait a little longer until you are in a position to start yourselves?—They start by being outsiders but they soon become insiders.

3348. But they are absentee proprietors, are they not?—At present all capital that comes from home is owned by absentees, but still the workmen are in the country and the money is spent here, or a great deal of it.

3349. But the profits, the dividends, are spent outside your Union?—Yes, but that will continue, I am afraid, for a long time.

3350. If you were sufficiently strong to organize these industries for yourselves, you would have not only the work but the profits besides?—Yes, that is true, of course.

3351. The conditions as regards the supply of labour would seem to be favourable to the setting up of industries by the people themselves, would they not?—Yes.

3352. I suppose that, as the people here grow in strength, it will be their objective to initiate suitable industries for themselves?—Yes.

3353. **(Mr. Tatlow.)** You said there was a tendency on the part of the sons of the agriculturist to flock into the towns and offer themselves for artisan labour. Apart from that, is there in the towns an increasing number of youths in regard to whom it is difficult to say what employment they can obtain?—Yes, they are now being trained to technical industries, and so on.

3354. I am thinking of the white population?—Yes.

3355. Is there an increasing number for whom it is difficult now to find suitable employment?—Yes, that is the case.

3356. And those would be well utilised in your industries?—Yes.

3357. And would they willingly become artisans?—Yes, I am quite sure of it, and work at artisan wages.

3358. You think that the field is open?—Yes.

3359. And it is rather a problem at present what to do with the growing youth?—Yes, in the town.

3360. **(Mr. Lorimer.)** Where are Levers' and Price's factories situated?—Levers' are at Durban and Price's at Cape Town.

3361. As they have to import the greater part of their raw materials, they would naturally go to the sea coast?—Yes.

3362. As most finished articles weigh when they are finished a good deal less than the raw materials of which they are composed, that is an adverse influence in respect to building factories up-country and thereby entailing railage charges?—Yes.

3363. So that most of your industries would probably be established at the seaports?—Yes; but we are urging the Government to modify the railway rates so as to neutralise that advantage which is in favour of the seaports.

3364. Now, in respect to leather, it is somewhat different; with the tanning materials up-country and the hides up-country, why is there no effort of production made on your own part, seeing that the raw material is all there?—Want of capital and want of knowledge, I should say.

3365. Of course, to establish boot and shoe factories and to fit them up with adequate machinery to compete with the rest of the world would involve a good deal of capital, but you could tan your hides without a great deal of expenditure?—The tanners want almost more capital, because the stock takes about six or nine months before it becomes fit to be used for leather.

3366. But in establishing boot factories, the same thing would exist, plus cost of machinery and the interest on the capital involved?—Quite so.

3367. Suppose factories were established in the interior, would you have any difficulty in keeping them supplied with coal at a moderate price?—No difficulty at all.

3368. What sort of rolling stock was it suggested two years ago should be built at Bloemfontein—railway carriages and wagons?—Yes.

3369. Was there an English firm here which had experience in that business, or would they send out their staff and start a branch here?—Yes.

3370. And what was the cause of failure?—Negotiations between them and the Government went on, and they wanted certain contracts from the Government for a certain number of years before they would start.

3371. And the Government would not guarantee enough work?—I suppose that was it.

3372. I do not know whether it was you or some other gentleman this morning who said that while the greater part of the imports into the Union are from Great Britain, you had to get large supplies of windmills from the United States?—Yes.

3373. Do you have these offered to you from Australia?—I do not think so.

3374. Because when I was in Rockhampton, Queensland, I was in a factory where they did a great business in windmills. They shipped them all over the country and they seemed to have enough power to export. They have never thought it worth while to come to South Africa?—No, it seems not.

3375. **(Mr. Bowring.)** Besides these soap and candle factories, there are other local industries, I suppose, carried on by local concerns—boot and shoe manufacturers and others?—Yes, and furniture.

3376. And what others do you know of?—Furniture, I think, is the only one.

3377. And these factories have been successful?—Apparently in a small way, but, in addition, you see there are very large quantities of these goods imported; therefore, it appears that they are not dealing with the actual requirements of the country.

3378. The locally-owned factories do not seem to expand at all?—No.

3379. And you rather think that the home manufacturers who are working in a large way could do it very much better than the local people?—Yes.

3380. Having more capital and better facilities?—Yes.

3381. In regard to raw materials for soap-making, have you any information that you could give us in regard to that?—No.

3382. You do not know the quantities of palm oil, for instance, supplied to these factories?—No, but that could be got from the Customs returns, I suppose.

3383. Or the quantities of whale oil?—No.

3384. But you would probably say that the greater proportion of soap-making materials are to be had on the spot?—A certain proportion. I should say the greater proportion. Ultimately it will come to that.

3385. You know, for instance, there has been a very large whale factory established on the coast here?—Yes.

3386. And much of that oil goes into soap-making?—Yes.

3387. And palm oil is a large factor?—Yes, it comes from the West Coast.

3388. So one would imagine that for soap-making you are in a very fine position?—Yes.

3389. And also candle-making?—Yes.

3390. **(Sir Rider Haggard.)** About this influx into the towns of which you have been speaking; is it going on to any considerable extent in this country?—Yes, it is lately.

3391. Do you look upon it as a danger?—It is a danger in so far as the people are lowered in their status in the town. They gradually sink from farmers to labourers.

3392. What class of people is it that comes into the town, the poor white?—Yes.

3393. The bywoner class you mean?—Yes.

3394. And you think that is an increasing movement?—Undoubtedly.

3395. Take your own district, has there been an influx into Bloemfontein?—Yes, they come from all over the Union here.

3396. I have been told that there is a certain reflex action from the towns to the land, but I would presume that that would apply to a few of the upper classes who go out of the towns?—Yes; I must say we have not noticed that reflex movement here.

3397. Do you think there is a sufficient population on the land that you can afford to spare them to go to the cities?—No, but somehow or other they cannot make a living on the land—that class of man.

3398. You think they come here because they think they can do better?—I suppose so.

3399. Do they, in fact, do better?—Yes, in one way. They get a smaller income, perhaps, but somehow it is more regular and certain than on the farms.

3400. Is that, perhaps, not due to lack of enterprise on their part on the farms?—Yes, and the bad seasons.

3401. Lack of energy?—Perhaps so. But the great factor is native labour. That is doing the work the poor white would have to do.

3402. You think it is because he comes into competition with the native labourer?—Yes, the farmer would rather employ the native labourer, because he can be freer with him than with the poor white.

3403. I suppose I should not be far wrong if I concluded that this movement is likely to extend rather than to lessen?—Yes.

3404. Would not the remedy be closer settlement?—We are working in that direction now, but it means capital.

3405. It would be a remedy?—Yes, we have urged the Government already, many times, to make farms available for these people.

3406. And, I suppose, you will admit that the danger in a wide country like this of crowding the population into a few towns is so great that it is highly desirable that such closer settlement should be undertaken and carried to a successful issue?—Yes.

3407. **(Chairman.)** What wages do these poor whites get in Bloemfontein which attracts them?—From 4*s.* to 7*s.* a day.

3408. For what kind of work?—Overseer work and unskilled labour.

3409. And that compares with what rate paid to natives?—The native gets from 2*s.* to 3*s.* a day.

3410. How do you measure the efficiency of the work of the two?—It is very difficult to measure that efficiency, because you are induced to employ the poor white to do this work often on sentimental grounds. You do not merely consider the economic principle.

3411. That is to say, you employ the poor white because you wish to give him a job, and not because he gives you value for money?—Not altogether.

3412. If you looked solely at the economic factor you would get the work done far more cheaply by natives?—Yes, that lower class of work.

3413. So, generally, the employment which attracts these poor whites to Bloemfontein is given them on sentimental grounds?—Yes, and therefore we want opportunity for them in the better kind of manufacturing industries, because they are quite able to do the better class of work.

3414. But would it not be more healthy for the State if means were devised for closer settlement or some other way of giving them employment on the land?—Yes, certainly.

3415. That would be preferable?—Yes, for their families and for their children in every way.

3416. You have alluded several times in the course of your evidence to the scarcity of capital?—Yes.

3417. What are the conditions regarding that here? Is capital very scarce for the foundation or assistance of legitimate industries?—Apparently, it is so. Whether the capital is scarce itself or the capitalist is averse to employing it in that direction, it is difficult to say.

3418. Is it a fact that the capitalist prefers to invest in land rather than employ his money in industry?—That is, unfortunately, the case.

3419. Unfortunately or fortunately?—I should say unfortunately, because, being a town dweller myself, I should like to see industries develop in the towns, but the capitalist is averse to employing his money in the town or in town property, generally. I suppose he thinks the stability or the measure of security is not so great as on the land.

3420. That might conceivably be a desirable development?—I cannot see how it can be, because after all there is a large population living in the towns, which are a great asset. They constitute a valuable asset to the country too, and that development ought not to be stopped.

3421. Might it not be possibly more so if they were in the country rather than in the towns?—Well, we cannot all be farmers.

3422. As regards the scarcity of capital, do you say the banking facilities of the country are inadequate?—I do not think they are inadequate, but their inclination to lend money in towns is not very pronounced.

3423. Are they more inclined to lay it out in the country?—Yes.

3424. Regarding the security as better?—Yes.

3425. At what rate can capital be obtained from the banks here on reasonable security?—From seven to eight per cent.

3426. And can money be obtained on mortgage in the country districts at a lower rate?—Six per cent. is the prevailing rate.

3427. That rate has remained stationary for many years?—Yes.

3428. Have you suffered much here from the world scarcity of capital? Have rates gone up here?—No, I cannot say that. They have always been fairly level. That six per cent. mortgage on a farm is always the prevailing rate.

3429. You are probably aware that in a great many countries the prevailing rate of interest has increased considerably during the last three or four years?—That is not the case here. The tendency has always been rather to curtail the employment of capital than pay a higher rate. Rather than raise money at eight per cent. a farmer would sooner wait till terms were more favourable.

3430. And you state that for the purposes of agriculture there is ample capital available in the banks?—Yes.

3431. Have the recent years of drought led to many cases of foreclosure, or difficulties between lenders and borrowers?—No, because a certain amount of patience is always exercised. The banks and lenders are well aware that unavoidable circumstances have been the cause of men being remiss in repaying their loans, and so they have given time.

3432. Is it within your knowledge that the land about here has risen or fallen in value during the last four or five years?—Yes, it has risen.

3433. And the effect of the recent three years of drought has not been to counteract that rise?—No. Really this year, the third year, has been the culminating point. Distress has not yet shown itself, but I

think there is a tendency for prices to go back a little, as people will not buy at present.

3434. Is the current price of land to-day higher than two or three years ago?—I cannot say it is lower.

3435. And compared with five or six years ago?—It is higher.

3436. **(Sir Jan Langerman.)** In regard to the mortgages on land at six per cent., they can get money from the Land Bank at five per cent.?—Yes, but the restrictions are so great that as a rule people do not avail themselves of it. The Land Bank only lends a certain limited amount, and I believe there are other restrictions on the borrowing of money from that institution, so the tendency has been that the capital available in insurance and other financial institutions is fully employed in farm loans.

3437. Every year the Land Bank comes to Parliament for a large sum, and a great many people are able year after year to make more use of the land?—Yes, and in spite of that, the six per cent. mortgage is largely availed of.

3438. Is it notorious that banks do not lend money for industrial purposes?—Yes, that is my evidence, and no financial institutions either, such as Insurance Companies.

3439. Now, in regard to mortgages, do you know of any case where a mortgage has been raised by a farmer on his farm, and that money went into the property to improve it?—That is generally the case.

3440. Is it not generally raised in order to pay off debts which the farmer has previously incurred. He raises that money in order to discharge these debts, and not a penny goes into the farm?—I will not say that. I think the money is raised for buying stock and other farming requisites.

3441. **(Mr. Sinclair.)** When you say that banks do not lend money to put into industries, are we to understand that a business man, if he wants to develop his industry, cannot get banking accommodation?—I think so. I mean to say he might get a temporary bank accommodation, but they will not finance him like, for instance, industries are financed by the German banks. We cannot get it.

3442. There are special facilities given there. But the ordinary facilities involve, do they not, financial assistance to the proprietor when he is seeking to develop his industry. Can that banking assistance not be got here?—They are alway averse to lend money as a permanent loan. They will probably grant an overdraft for a time, but they would not dream of sinking money in industrial undertakings for any number of years.

3443. But do they show any hesitation in giving overdrafts where there is a prospect of an industry being extended?—No, they are quite liberal in that way, but that is only a temporary accommodation.

NATAL.

Durban, Monday, 23rd March, 1914.

Mr. Alexander Buchanan, Chairman, and Mr. Walter Butcher, Vice-Chairman, of the Durban Chamber of Commerce, called and examined.

(For evidence of these witnesses on "Statistics, Weights, and Measures," see p. 127 of this volume, and on "Ocean Freight Rates, see p. 78 of [Cd. 7706].)

3444. **(Chairman.)** You have prepared a statement* on the question of arbitration awards?

Statement put in as follows:—

Arbitration Awards.

We desire to give expression to the feeling of this Chamber on the question of the need for recognised means of arbitration on matters in dispute between parties trading in the different Dominions of the British Empire.

The Dominion of South Africa is endeavouring to minimise the need of arbitration as regards its exports by the appointment of Government officials for the grading of maize, fruit, and other commodities.

As regards trade between the different Provinces of the Dominion in Colonial produce, Rules of Arbitration were adopted at the Associated Chambers of Commerce Congress held last year at Kimberley, which have been accepted by dealers generally.

Disputes that arise in regard to exports from South Africa to Europe are generally settled at the receiving ports without difficulty by means of arbitration.

In the case of imports into South Africa from other Dominions of the Empire, particularly from India, the absence of a satisfactory method of settling disputes, which only too often arise, in regard to quality and the proper carrying out of contracts, is very vexatious.

The principal imports to South Africa from India are gunnies and rice, which are shipped from Calcutta.

Gunnies (*i.e.*, grain bags and wool packs) are frequently found on arrival to be light weight and of inferior quality, and importers claim that the proper place to arbitrate on such disputed shipments is at the port of discharge, where the whole shipment can be inspected. Under existing conditions, however, it is necessary to return two unopened packages to Calcutta, nominated or selected numerically by the Bengal Chamber of Commerce, who appoint the arbitrators, and the award of those arbitrators is final as regards the whole shipment in dispute. This method is unsatisfactory, both as regards the uncertainty of obtaining a correct finding and also as regards the time spent in obtaining a settlement of the matter in dispute.

Rice is imported in different qualities, and in this trade a need is felt for the standardisation of official grading of the different qualities and for certified weights. The question has been taken up by the Executive Committee of the Associated Chambers of Commerce of South Africa, and is still unsettled; but in view of the attitude adopted by the Jute Growers' Association in regard to similar complaints and appeals from Hankow, Australia, and other importing markets, it is doubtful whether the representations made from South Africa will receive any more favourable consideration.

Vide extracts from Bengal Chamber of Commerce Report for 1912, draft form of Sale Note or Contract submitted by this Chamber to the Associated Chambers of Commerce of South Africa, and Rules of Arbitration for the Produce Trade of South Africa (all appended).*

To a small extent difficulties occur in dealings with other Dominions of the Empire, but, speaking generally, there is not the same difficulty in arranging settlements as is found in dealing with Calcutta shippers and with the Jute Growers' Association.

Uniformity in legislation regarding arbitration throughout the Empire is hardly possible in view of the very different conditions that obtain in the different markets; but any efforts or recommendations made by the Commission for the general provision and

* The witnesses also submitted a memorandum and letter as to Commercial Travellers' Licences, see Appendices I and II., pp. 175 and 176.

* Not reprinted.

recognition of the principle of arbitration by means of mutually satisfactory methods would doubtless be much appreciated by all importers and exporters in the Dominions of the Empire.

3445. I think it is probably within your knowledge that this subject is already in process of settlement between the Governments regarding arbitration awards?—**(Mr. Buchanan.)** I am not aware of it.

3446. The subject has been the cause of correspondence between the various Governments of the Empire and I think considerable progress has been made towards arriving at a solution?—We have had correspondence with the Bengal Chamber of Commerce extending over some time now, and we know that other markets importing goods from Calcutta have also had lengthy correspondence but without satisfactory result.

3447. Your point is to make arbitration awards more easy to obtain and more easily enforceable?—Yes. At present the arbitration between suppliers in Calcutta and importers in South Africa is arranged entirely from the point of view of the shipper or the supplier. In the case of arbitration regarding gunnies we have to return to Calcutta two unopened packages, which are selected by the Bengal Chamber of Commerce or the Jute Growers' Association, I am not sure which, and arbitrators are appointed by those bodies and their award is binding on the whole shipments under dispute. Our claim is that the correct place to arbitrate is the place where the goods lie and where the whole shipment can be inspected. Large numbers of claims arose last year in respect particularly to goods which were evidently packed in a damp condition and heated, and when they arrived here were more like tinder than anything else. The agents of the shippers were called in to examine these goods and they advised the return of a certain number of packages to show what the defect was, but our claim was repudiated. We have an informal offer from the merchants, not the suppliers, to share our loss, but in my case, for instance, I have declined to accept that settlement and I have called for a full recognition of my claim.

3448. Turning now to the subject of rice?—Rice is imported here in several qualities and a large number of European importers have gone out of the trade rather than continue with the unsatisfactory practices that obtain in the trade.

3449. What you desire is official grading?—Yes, and I think most of us would contend that, although there are hundreds of samples of rice produced in the Calcutta market by blending, still, for the purposes of this trade, quite a small range of samples would be satisfactory to both buyer and seller, and we would like to see a standard range of samples which could be depended upon. We have also called for official weights, which are not obtainable at the present time.

3450. What do you mean by official weights?—The rice is imported and sold by the bag, the bag is one of two maunds, that is an Indian measure. We call for a bag of rice to weigh 164 lbs. landed here, but it is quite the exception to get rice up to that standard.

3451. What reply have you had from Bengal on this subject?—They have declined to give the official weights. We have tried to arrange to get them through the shipping companies and we have even offered to pay a higher rate of freight in order that the official weight might be given by the shippers, but we have not been successful in that respect. The principal difficulty is owing to the fact that the rice comes down the river in "godowns" and these lie in the river for some time waiting for a steamer to arrive, and during all this time those on board the "godowns" live on the rice.

3452. It is not a question of rice drying then, it is a question of pilfering?—Yes.

3453. Have the other importers of rice from India joined with you in making representations?—Yes.

3454. I do not mean the other importers here but the importers in other countries?—Natal is practically the only Province in the Union which imports rice, that is ration rice. The white rice known in the trade does not come from Calcutta at all, it comes from Rangoon.

3455. To what other ports is ration rice shipped from Calcutta?—The East Coast of Africa and West Indies very largely.

3456. Have the importers there joined with you in representations?—The same difficulty in regard to weights has arisen in their markets.

3457. My suggestion is, has any joint action been taken by those who have suffered from these practices in other countries?—I do not think so. In the case of Natal we have approached Hankow and Melbourne to co-operate with us in regard to the complaint and in the appeals which we have made to the Calcutta Chamber of Commerce, but they have not seen their way to go further with it.

3458. For what reason?—It is not much use, especially in regard to the Jute Growers' Association; they have a monopoly. We are all bound to go to Calcutta for our jute, but they are not open to criticism.

3459. Because probable representations made by the whole body of buyers would have greater force than representations made by a small section?—We have done that from South Africa by bringing the matter from Durban to the notice of the Associated Chambers of Commerce, and at Kimberly last year it was arranged that the Executive Committee of the Associated Chambers should appeal to the Calcutta Chamber of Commerce.

3460. Have they done so?—Yes, we submitted a form of contract note which we thought would be reasonable and acceptable to both parties.

3461. **(Mr. Tatlow.)** You say that disputes that arise in regard to exports from South Africa especially, are generally settled at the receiving ports without difficulty by arbitration, but I suppose numerous cases do happen where it is not so?—I do not think many cases arise. At the present time the exports from South Africa that would be subject to dispute are principally maize and wattle bark, which is shipped principally to Hamburg, and the practice there is to appoint arbitrators and the shippers have so far agreed to abide by it.

3462. But your point is rather that the arbitration should take place at the receiving ports, because that is the most convenient place, and in regard to the two commodities of which you speak, grading does not apply?—Yes, it would apply in the case of maize, but not bark. There is a movement now to appoint Government graders for wattle bark.

3463. **(Mr. Sinclair.)** The objection which you put forward to the system of arbitration is one that calls for adjustment, does it not, between the respective Chambers of Commerce that are in existence?—Yes.

3464. You have set aside, have you not, and decided not to resort to, your ordinary common law rights; is that so?—So far.

3465. You forgo your common law riglits and frame by agreement regulations to govern the settlement of disputes?—Yes.

3466. And those regulations are, from your point of view, defective?—Yes.

3467. If you fail by negotiation to get what you regard as an equitable modification of your regulations you can always fall back on your rights?—Yes; but legal proceedings between dealers separated by the ocean are very expensive and very troublesome.

3468. Yes, and very unsatisfactory, no doubt. But it is a lever, is it not, that would help you to get an adjustment of an unsatisfactory and unfair regulation?—Yes, it is a final expedient, but we wish to promote more amicable terms of dealing.

3469. And, so far, you have failed to get the regulations adjusted in the way you think fair?—Yes.

3470. Are you still negotiating?—Yes, we have not heard officially from the Calcutta Chamber in regard to the correspondence with the Executive of the Associated Chambers of Commerce of South Africa.

3471. **(Mr. Lorimer.)** I notice in this memorandum that the principal difficulty you have is with India?—Yes.

3472. What you want to arbitrate on is whether the article delivered is exactly as ordered and paid for?—Yes.

3473. How do you prove your case?—The vendors have representatives here who take the orders from us.

3474. What I want to know is, what does your proof consist of?—Showing the representatives of the vendors the goods complained of.

3475. Can you at any time produce the article agreed upon and say "That is what I bought and that is what you supplied"?—In the case of grain bags, the custom here is to buy 2½ lb. grain bags known as A Twills, which should weigh 2½ lbs. When we find those bags arriving here weighing 1¾ lbs. and 2 lbs. and 2¼ lbs. we say we have a right to complain and we call the representatives of the vendors in and they report to their principals.

3476. What answer do they give?—They say the class of goods we buy is so low in quality that it is impossible to make every bag weigh exactly 2½ lbs.

3477. But would you be expected to submit to a variation of 40 per cent. Is it a big thing?—Yes, a very big thing.

3478. These arbitrations will be costly?—Yes.

3479. Could you not have two bags agreed upon and accepted, one held by each party?—It is not customary to submit a standard sample.

3480. But would not this be the better way of dealing with the matter; would it not tend to obviate disputes?—It might, but I do not think you would get the Jute Growers' Association to submit a standard sample.

3481. If you had a standard sample that would determine the weight you were to get. Would they agree to that?—The definition 2½ lb. A Twills 8 by 8 porter ought to give a satisfactory result.

3482. Well, it seems to me to be possibly a satisfactory way of settling what appears to be a very extensive ground of dispute and one that causes a great deal of expense, irritation, and annoyance. It seems to me that if each of you agreed to a sample, if it did not prevent disputes it would facilitate settlement?—Yes; but if you have an article produced of a given fabric, and you arrange for the number of counts of that fabric and the weight you would not be able to go past that definition.

3483. **(Mr. Campbell.)** With regard to arbitration, Mr. Butcher, is there any legislation in the Union which allows parties to submit their differences to a tribunal, and in the submission to that tribunal to agree to forgo their rights before the court?—**(Mr. Butcher.)** No, I do not think there is any provision for arbitration.

3484. You have not got anything here in South Africa corresponding to the Arbitration Act in England?—No, I do not think so.

3485. Would it not be advisable for you to press for legislation of that kind in order to strengthen the awards of your arbitration tribunals and the Chambers of Commerce?—Of course, legislation here would not bind the parties in India.

3486. But I am speaking about your own arbitration tribunals here—about the strengthening of your arbitration tribunals in connection with the Chambers of Commerce. Let me explain; the matter of arbitration awards that is before the different Governments now is a question of extending the awards of commercial arbitration tribunals from one country to another by some means of registration or something equivalent to it?—That is to say, the findings in one country must be binding in another country.

3487. Yes, if extended by registration; by transference of the judgment. And what I was suggesting was, that until you have your arbitration tribunals here properly strengthened by an Arbitration Act, it would be rather too much to ask that the awards of your tribunals should be extended to other countries and binding on contractors in other countries?—Quite so. But we want to try and arrange for a system of arbitration which shall be mutually agreed upon by buyers and sellers in the different countries. The conditions are so different in the different Dominions that special arrangements would have to be made in almost every market. For instance, here we would be told by the Jute Growers' Association that South Africa is a very small market comparatively—that we in Durban, for instance, are a very small community, and we could hardly look for an unbiassed finding.

3488. But still, if you had an arbitration tribunal in South Africa which was recognised by law here, and you could go before that tribunal and get judgment which could be extended to Calcutta or any part of the Empire, it would help you in the direction you wish?—You must have technical knowledge of the matters in many cases where you arbitrate on the matter of quality.

3489. Is not every Chamber of Commerce in South Africa provided with technical knowledge by arbitrators and assessors? Have you no means here in your Chambers of Commerce for the formation of an arbitration tribunal which would have that expert knowledge in every case?—Yes, we have.

3490. What I want to know is, is that arbitration tribunal backed by an Arbitration Act so that the judgments of the arbitration tribunal are equivalent to a court of law if registered?—No, not as between parties resident in South Africa and parties resident oversea.

3491. Do you not think that legislation of that sort would be a considerable gain in this country?—**(Mr. Buchanan.)** Yes.

3492. And having got that, it would assist in the movement to extend the judgments of such courts to other countries with which you have disputes?—Yes, I think so.

3493. With regard to these rice contracts, the system of buying, I understand, is for the rice merchants in India to have representatives here and they submit samples to you and you buy on those samples?—**(Mr. Butcher.)** Yes.

3494. Are those the manufacturers' own samples or does the Chamber of Commerce in India fix standard samples?—There are no standards fixed—that is just what we want.

3495. You want standards fixed by the Chambers of Commerce in India?—Yes.

3496. In the making of these contracts, you have given the Commission a specimen sale note, which this Chamber of Commerce has submitted, I understand, to the Chambers of Commerce in India for adoption by the merchants?—We have submitted a sale note which the Executive of the Association of Chambers of Commerce in South Africa has submitted to the Chambers in India, so that the negotiations would have more weight, as coming from a combined body.

3497. With the ultimate idea of that note being adopted by the Chambers of Commerce in India?—Yes.

3498. In the making of these contracts for the sale of rice and jute goods, is the rice usually delivered by the vender in Durban, or is it delivered on board the ship?—It is delivered free on board, and usually sold c.i.f., delivered on to the wharf here.

3499. The vendor's contract does not terminate in India?—The vendor's contract terminates with the discharge here.

3500. I noticed you made a provision that the arbitration action should be brought here?—Yes.

3501. **(Sir Jan Langerman.)** You would not like to commit yourself to a definite statement that there is no Arbitration Act in South Africa?—I am not aware of any Union Arbitration Act.

3502. We have such an Act?—It has not come to our notice.

[*See also letter from Mr. Butcher, printed as Appendix II., p.* 176.]

Durban, Tuesday, 24th March, 1914.

Mr. E. Anderson (Chairman) and Mr. Joseph St. G. Reynolds-Tait (Secretary) of the Natal Manufacturers' Association.

(*For the evidence of Mr. Reynolds-Tait on the Tea Industry, see p.* 222 *of* [Cd. 7706].)

3503. **(Chairman.)** You represent the Natal Manufacturers' Association?—**(Mr. Anderson.)** Yes, I am Chairman and Mr. Tait is Secretary.

The witnesses submitted the following Memorandum:—

The growth of Durban as a manufacturing centre during the past ten or fifteen years has been greater than that of any other South African centre, and it may be of interest to record shortly the reasons which have induced manufacturers in Europe to consider the potentialities of Durban as an industrial centre; first in relation to South Africa as a whole, and secondly, in relation to the Southern Hemisphere.

The economic conditions of South Africa fifteen years ago were vastly different from what they are to-day. At that time South Africa was more or less a mining camp, which imported the finished products of other countries, and paid for them in raw gold and diamonds, and, to a limited extent, in ostrich feathers and wool. A little later, the possibilities of a market whose consumption of products ran into millions sterling every year began to attract the attention of a few who had the necessary knowledge, the necessary capital, and the necessary enterprise, and small industries arose one by one, which struggled against the opposition of importers, the indifference of the public, and the neglect of Governments to their efforts to secure a few of the crumbs which fell from the rich tables of the Rand. Some of these industries, by dint of heroic efforts, secured some recognition from their respective Governments in the shape of protection by means of Customs duties, and the European manufacturer began to find his business attacked by the competition of the local producer.

There can be no doubt that this has been the first factor in promoting inquiry into the possibility of opening factories on the spot to recover the trade that has been lost. The same course was adopted when the United States, Germany, and Australia imposed a protective tariff.

But this was not the sole consideration. Large as the South African market is, the life of the Rand is limited, and although new goldfields may be and are being discovered, the European industrialist requires something more stable than a speculative possibility of this kind before he can be induced to sink capital in, and import works for, the securing a market which might in the end prove worthless.

That more stable factor can readily be seen by glancing at the map of the world, and considering South Africa's position in the Southern Hemisphere. The problem before the European manufacturer, put into a few words, is, therefore, "How can I secure the trade of South Africa, which at present shuts out my goods by a protective tariff?" and the answer, "By opening a factory there," induces the further question, "Where can I find a wider market for my surplus products if the South African market should not suffice?" The answer is "Overseas."

South Africa having been decided upon for these reasons, the next problem is, in what part of the sub-continent? To be a manufacturing centre, a town requires a healthy climate, plenty of fairly level ground, an adequate water supply, a good and cheap coal supply, cheap labour, and proximity, or at least access, to a harbour capable of allowing deep-draught vessels to load and unload. (In this connection it is noteworthy that Port Natal is the only harbour in the Southern Hemisphere which has a depth to accommodate vessels of the size of the "Mauretania" and "Lusitania.") At the same time it must be near to the market it intends to feed. Cape Town possesses one great advantage in that, on the Atlantic side, water can be obtained at a temperature which never exceeds 42 degrees all the year round, thus obviating the necessity for refrigeration. It also has plenty of room for expansion, and a good harbour, but there its advantages end. In regard to quantity of water, prices of coal and labour, and nearness to market, it is out of the running. The other Cape ports do not possess even the advantages of Cape Town, and even if Lourenço Marques were in the Customs Union, its handicap of climate and administration would more than counterbalance its advantages of coal, water, and geographical position. Durban is the only town which fulfils all these conditions, and it is thus to Durban that the European industrialist looks when fixing the scene of his operations. In addition to its nearness to the great market of the Rand, it is exactly halfway between Cardiff and Hong Kong, and practically half-way between London and Melbourne. The whole of Southern Asia lies at its front door, and the east coast of South America is only round the corner. It is too early yet to say whether the huge deposits of iron ore near Maritzburg and in the Northern Counties are really payable propositions, and whether the product of the lime deposits of the Umzimkulu can be laid down at a figure to enable that iron to be smelted; but should this basic industry be successful, it requires no great stretch of imagination to see Durban the Liverpool not only of South Africa, but of the Southern Hemisphere, before the present century has half run its course.

3504. We shall be glad if you will give us a few more facts in support of your general thesis.—**(Mr. Anderson.)** If you will ask questions we will be pleased to answer them to the best of our ability.

3505. First of all, in regard to the growth of Durban during the last fifteen years. You say that it has been greater than that of any other South African centre. Have you any figures in support of that statement?—**(Mr. Reynolds-Tait.)** The rateable value of Durban has increased very considerably, as the Corporation figures will show. Those figures can be easily obtained.

3506. Have a number of new industries been started here?—**(Mr. Anderson.)** Yes. I may tell you that we were asked at the eleventh hour to prepare this statement, and, although it is quite correct it has been written rather hurriedly and there has not been time to supply any detailed information. But everything that is stated there can be substantiated, and if there is anything that we are not able to reply to now, we shall be quite willing to come back and give further evidence or let you have any data that you may wish.

3507. Your general thesis is this, that with a view to the creation of a big industrial centre at Durban, the capitalist requires some guarantee of permanence greater than the Rand can afford?—That is so.

3508. And therefore it is important and even necessary to create other markets than Johannesburg?—Yes.

3509. What have you to say about other markets that you think it may be possible to create?—Along the whole of the South Asiatic coast there should be a market for goods manufactured locally in competition with Great Britain considering that we are the half-way house between Great Britain and that market.

3510. Of course, one of the governing conditions in regard to a trade of that kind being created is cheapness of freights from this country?—Undoubtedly.

3511. And to obtain cheap rates from here you have to create cargo coming here?—Yes.

3512. What possibility do you see of that. You must lay out the entire route of the steamer if you want a cheap rate. For instance, we had the same

story yesterday about coal.* They said there is a large market in India and the Far East provided we can get a cheap freight, and then the question arises what return cargo you could get?—**(Mr. Reynolds-Tait.)** But is it necessary that the vessel should come here from India? A large number of vessels come here in ballast with Baltic timber.

3513. Is there a large number?—A large number of vessels. The Clan Line of steamers come here from Liverpool and proceed East or to Australia for the purpose of picking up homeward freight.

3514. And your suggestion is that those vessels could take on Natal manufactures?—Yes.

3515. But have you in your mind any new trade which would give vessels plying between the East and here any cargo in this direction?—**(Mr. Anderson.)** From the East rice is being imported and goods emanating from China—gunnies and rice. Many vessels are plying between India and South Africa.

3516. You say that the whole of Southern Asia lies at your front door and the coast of South America is only round the corner. How far is the East Coast of South America from here?—**(Mr. Reynolds-Tait.)** I should say between 5,000 and 6,000 miles.

3517. Do you see any possibility of getting cheap freights from here to South America?—**(Mr. Anderson.)** There was a time when the steamers came from South America fully laden with frozen meat, maize, and grain. Of course, everything must have a beginning. I should like to give an illustration in regard to my own particular industry, namely soap. A soap manufacturer, wherever he may be situated in the world, gets a lot of raw materials from Australia and from the East. Now the vessels come here from Australia with cargoes of tallow; they come into this port and land some of their passengers and take others, and they also take coals and proceed home to England with this tallow. This tallow is manufactured into soap and sent back from the United Kingdom to South Africa. This would not be possible if the freight for this tallow was not actually lower from Australia to the United Kingdom than it is from Australia to South Africa.

3518. Is that so?—Yes, it is.

3519. Can you give figures in support of that?—Yes, I can give you figures. The freight rate from Australia to London is about 40*s.* to 45*s.* I am now speaking of tallow. The freight rate from Sydney or Melbourne to this port is 47*s.* 6*d.* Of course, the owners of these vessels are in London. They must study the man living in the United Kingdom, and the man in South Africa is left very much to himself. The management of the shipping lines on this side of the water do not see their way to help in these matters.

3520. What causes you to attribute that particular motive to the action of the shipowners?—I may perhaps be a bit blunt or drastic, but that is the fact.

3521. But have you any reason to suppose that this is their motive?—We have complained against the freight, and we have not got any reduction. I have a bill of lading here—one for 1910, when the freight was 30*s.* A bill of lading came in this morning from Sydney, and the freight was 47*s.* 6*d.*; the actual difference, therefore, is 17*s.* 6*d.* per ton.

3522. On what line of steamers?—The P. & O. branch Australian service, and the first one happened to be the same thing, Lund's Blue Anchor Line, which is now incorporated in the P. & O.

3523. Do you get the same rates from all lines?—Yes, the freights are fixed every Monday morning. The tendency of freights year after year has been upward. The first was 30*s.*, the next 32*s.* 6*d.*, the next 35*s.*, the next 37*s.* 6*d.*, the next 42*s.* 6*d.*, and the last 47*s.* 6*d.*

3524. Will you give the rates of each?—Yes. On the 15th February, 1910, which is four years ago, the freight was 30*s.* On the 13th March, 1909, it was 32*s.* 6*d.* On the 14th February, 1910, it was 35*s.* On the 21st April it was 37*s.* 6*d.* On the 15th March, 1911, it was 42*s.* 6*d.* On the 20th February, 1914, it was 47*s.* 6*d.* This is not only the position with tallow, but it is also the position with flour and everything else from Australia. The man in the United Kingdom has the benefit; he pays the same rate of freight that we have to pay, although the distance is more than double.

3525. In regard to ships bringing tallow or any other cargo to this country, would they be able to secure paying cargo from here to the United Kingdom?—Yes, I think they would if they were allowed to by the combine which exists in the trade, so far as South Africa is concerned.

3526. What combine do you mean?—I mean the Shipping Conference. It will not allow these outside people to take cargo. And then there is another element in the question, and that is the floating capacity of the Indian Ocean, which is known to be ever so much greater than that of the Atlantic Ocean. The water in the Indian Ocean has a higher floating capacity than the Atlantic Ocean, because of the higher percentage of salt, and very likely after a ship from Australia came here and took 100 tons of cargo from Durban she would not be able to go home with that cargo because she would be over the Board of Trade Plimsoll mark.

3527. That ought to give you cheap freights from Australia to South Africa?—We ought not to have to pay the same rate of freight as the man in London for less than half the distance. I believe the distance is 4,000 odd miles as against 10,000 odd miles to the United Kingdom.

3528. When you put that before the shipping company, what did they say?—They said it would be referred to London, and we have heard no more.

3529. What cargo do you suggest that these ships could take from here to London?—Wattle bark, maize, and all the ordinary lines that are shipped from this port.

3530. What are the rates on those lines from here to London now?—I cannot tell you.

3531. Your suggestion is that they could bring goods here at a lower rate and complete the price by taking goods on to London?—Yes. The present position is very much against us.

3532. **(Sir Jan Langerman.)** How would rates in South African and other ports compare with Australia and Canada? Are they higher, or the same, or lower according to distance? We will say from England to South Africa, and from England to Australia and Canada?—I cannot give you any facts of my own knowledge, but I believe the freights to Australia are slightly lower than from England to Australia; I am not certain.

3533. You know the freights are higher to South Africa because the shippers say they have no return freight?—**(Mr. Reynolds-Tait.)** Well, we manage to export nearly 1,000,000 tons a year more than we import at the present time.

3534. How is it, then, that the ships that come here have to go to the East for a cargo?—Because all the export trade practically is carried on through the combine lines.

3535. Have all those ships that come here sufficient return cargo?—Yes, they can carry more out than they can bring in.

3536. If you wish to create industries for exporting goods you will have to create a larger import trade?—Yes.

3537. In order to get reasonable rates?—Yes.

3538. Because a ship would not come here specially to load up?—No.

3539. Generally speaking, you are in favour of protection in this country, I understand, in order to protect industries?—**(Mr. Anderson.)** Yes.

3540. **(Sir Alfred Bateman.)** Did you say just now that the tonnage shipped from here was 1,000,000 tons more than is imported?—**(Mr. Reynolds-Tait.)** Yes.

3541. I cannot see how that can be. I have the table prepared by the Chamber of Commerce for 1912 showing 1,500,000 tons shipped and 2,700,000 landed?—**(Mr. Reynolds-Tait.)** We have the Customs Year Book for 1913 which was issued the other day and it shows a big difference.

* See evidence of Mr. J. T. Williams and Mr. Otto Siedle pp. 125 and 130 of [Cd. 7706].

3542. Surely it cannot have gone all that way in a single year. For 1911 it was 1,100,000 tons shipped and 2,400,000 tons landed?—I include bunker coal.

3543. Coal for bunkering is not included?—Well, I include it.

3544. It is not generally treated as cargo?—I treated it as export.*

3545. Another point I think is this. You said you thought you were badly treated as regards freight on goods that come from Australia to this country. You were charged a high rate of freight and you were also charged a high rate on goods going to England? **(Mr. Anderson.)** No, I mean from England.

3546. I think you spoke of your exports also?—**(Mr. Reynolds-Tait.)** No, I believe the export rates are fairly reasonable.

3547. You now pay $\frac{3}{8}$ of 1*d.* on wool as against $\frac{1}{4}d.$ from Australia to England?—Yes.

3548. And that is on account of your wool not being baled as closely as Australia's?—Yes, I believe so, although our wool is pressed in hydraulic presses very closely.

3549. Now, coming to the prospects of manufactures. Do you not think that the extension of manufacturing, as you desire, will begin by your making up the raw material you prodnce here. For instance, I see a proposal to form a wattle extract export instead of exporting the wattle bark?—Yes.

3550. And you represent the soap industry?—**(Mr. Anderson.)** Yes.

3551. That is composed very largely of raw materials that can he produced here?—Yes.

3552. You want a supply of tallow?—Yes, or other vegetable oils.

3553. Something you can produce here?—Yes, that has already been done. The soap industry has been in existence in South Africa about fourteen or fifteen years, but through the many cattle pests we have had in this country, the quantity of tallow has never been sufficient to enable us to get it from South Africa. It has been less and less every year on account of these pests. Some time ago, as you are aware no doubt, the whaling industry was established here and whale oil has been exported to England, but through tho presence of the soap industry in this country and new discoveries matters have gone so far that this whale oil will very likely no longer be exported to England. It will be used out here in the soap industry and in the form of edible fat. That illustrates to you how one thing leads to another. In regard to the exportation of wattle bark, ten years ago the export was very small and it would never have paid anybody to have established a wattle extract factory here, but now, on account of the freight being so high and the large amonnt of waste which is being sent home, it is found to be a payahle proposition to establish an extract factory. All the wood is not sent home because the bark only contains about 35 per cent. of acid, and a movement is now on foot to extract the tanning acid locally; they will then only send the tanning acid home and retain the wood matter here.

3554. But you are inclined to agree that for some time to come the kind of industries that you must have are those indnstries in regard to which the raw material is very bulky, such as the soap and wattle industry. Is there any chanco for leather?—Yes, I think so, certainly, but, of course, the leather production is also bound np with the question of cattle.

3555. You want more stock on the land both for soap and leather?—Yes.

3556. But you do not expect that within a very reasonable time you will compete in the East with Manchester?—No. **(Mr. Reynolds-Tait.)** As regards cotton, never.

3557. And in the highly developed industries?—No, we cannot spin cotton here.

3558. Nor in regard to wool. Do you spin tops here?—No.

3559. Then coming to what you consume here. You will be able to find your own sugar?—Yes.

3560. But then, again, the prices at which you work are higher, are they not, than in most countries? The price of sugar here is about 3*d.* as compared with 2*d.* in England?—Yes, but you speak of retail prices. It would be better to take the wholesale prices. The wholesale price is about 17*s.* 6*d.* for 100 lbs. best refined sugar.

3561. As compared with about 12*s.* in England?—**(Mr. Anderson.)** No, I think the best German granulated sugar costs something like 14*s.* 9*d.* to 15*s.*

3562. There is only a difference of 2*s.* or 3*s.*?—Yes.

3563. But in all these things the market that you work for now is the population you have here?—Yes, but we are speaking very much of the future in regard to the articles put before you.

3564. Now as regards your power, is there any chance of your making much use of electricity or electric power?—Yes.

3565. There is no water power?—No, but the coal is fairly cheap.

3566. Would the small coal at the pits be of any use to you?—Yes. From the comparisons I havo made I think the electric power or current supply in Durhan is as cheap or cheaper than anywhere else in the world practically. A short time ago we wanted to go in for a certain industry and we were quoted a rate of 0·4 of a penny per unit. That is a very low rate indeed. We were bound to take several millions of units per annnm, and we had to undertake to use the current at snch times as there was not much demand; otherwise the figures were as I have stated. **(Mr. Reynolds-Tait.)** The rate in Birmingham is 0·57 and in Blackpool it runs from $1\frac{1}{2}d.$ to 0·45 of a penny.

3567. So it is in those two directions that you contemplate an extension of your manufactures in time?—Yes.

3568. **(Mr. Sinclair.)** How long did you tell us your own industry had been established, that of soap-making?—We ourselves have been here sixteen years, but altogether the soap industry has been in South Africa a matter of twenty-five years.

3569. Has it been during the whole or a part of that time dependent on the import of tallow from Australia?—I should say always, and if you will allow me to say so the same thing is the position on the Continent and in Great Britain.

3570. And it is becoming increasingly dependent on shipments of tallow from Australia?—No.

3571. That means, then, that you are increasingly producing the tallow you require for your own manufactures?—Yes, and fats or vegetable oils, whatever may be used for soap-making.

3572. What is the prejudicial effect that you suggest to your industry by reason of the additional freights?—The prejudicial effect is that up to several years ago, when the industry was first met by a protective tariff and the lowering of the railway rate by the Government, it was impossible to compete with the oversea manufacturer because of these advantages which he had in regard to freight.

3573. Your industry has the natural protection of the freight on the manufactured article to the Union, has it not?—No, it is the reverse.

3574. You spoke of the raw material coming into the mother country and being sent back here in the shape of the manufactured article?—Yes.

* *The witness subsequently supplied the following Memorandum:—*

TONNAGE OF CARGO LANDED AND SHIPPED AT PORT NATAL AND THE UNION FOR THE YEAR 1913.

	Tons.
Natal:—	
Landed	865,699
†Shipped	2,290,004
Surplus	1,424,305
Union of South Africa:—	
Landed	2,775,957
†Shipped	2,948,496
Surplus	172,539

† Includes bunker Coal—1,080,000 tons in 1913.

3575. Do you not get the protection of the freight on the manufactured article from the mother country to South Africa?—No, it is the reverse.

3576. Manufacturers who send their goods from the mother country to South Africa to compete with yours have to pay freight from England to South Africa on their soap?—Yes.

3577. That is my point.—Yes, but may I extend it a little. We get a certain amount of raw materials from the United Kingdom, for instance, some kinds of oils. We have to get oils also from the Far East. Now on our raw materials the freights are higher than the freight on manufactured soap, in some cases three times as high, and therefore we have to pay a higher freight on the raw materials and on the small lines and accessories which we have to import for our business; so we are handicapped in that respect.

3578. Would you expect to get the same freight rates on the comparatively small quantities of tallow that would be shipped here as compared with the larger quantities that go to London?—Yes. In the bottom we can take the same quantities as they take in London.

3579. Is that regularly throughout the year?—Yes, all the year round.

3580. Have you made a calculation of the quantity that you would be able to take?—In regard to soap, I would like to mention that it is really not my desire to ventilate any grievance because after all we have overcome the conditions. I should like it to be understood that it is not a grievance with me. I am only using that by way of illustration. I am not here to air grievances. I am only here to give information to the Commission.

3581. **(Mr. Lorimer.)** What are the industries which you have contrived to establish in South Africa in spite of the neglect of the Government and the indifference of the public which you refer to?—There are many—tea and sugar, soap, candles, and in fact practically all the small industries are here.

3582. What do you manufacture besides?—Various food-stuffs, confectionery, cereals.

3583. Do they all pay?—Some do and some do not.

3584. You are struggling against the natural conditions and not very successfully?—Well, I would not put it as bluntly as that. We are struggling against industries that have been established more than 100 years, and which have the whole world as their market.

3585. You have, of course, certain things which you can utilize to a very good purpose, such as sugar and tea, but when you come to established manufactures in competition with the whole world, of course, you recognise that you have to look for a market outside of South Africa. You recognise that your market here is very limited?—Yes.

3586. And if you are to make these industries more successful you must look to the Eastern countries and to South America?—Yes.

3587. When we were in Australia and New Zealand that is precisely what we were told—they have similar industries to yours. Have you considered whether you have any advantage over those countries?—No. I am afraid we have not considered that point, but, of course, these ideas are not for the near future, they may come in ten, fifteen, or twenty years, but we keep the objects before us.

3588. Of course, in international competition success depends altogether on the cost of the working, and the cost of the work depends on the price of raw materials and wages?—Yes.

3589. In regard to raw materials for any industry which you could establish, how are you situated as compared with Australia and New Zealand?—I think we are as favourably situated as they are.

3590. Then, in respect to wages, you ought in one sense to be situated much more favourably because of your cheap coloured labour, a large amount of which would necessarily be introduced into your manufactures. Can you tell me, so far as you have gone, if you have found it really cheap?—No.

3591. Is it dear?—Yes.

3592. Unless you can make that labour more productive you have no advantage over Australia or New Zealand?—No, not that I know of, only our geographical position, perhaps.

3593. You can always retain your own market by means of protective duties for anything that you can consume, but you recognise that it would not pay to establish industries which depended solely on your own market. You must look outside?—We began with our own country, and there is no doubt it must be recognised that the native is becoming a larger consumer from day to day.

3594. Would you have your Kaffir always in your own market?—Yes.

3595. But even with the growing consumption of the Kaffir, do you think you could establish industries that would be profitable unless you go outside?—Yes, I think so.

3596. I can appreciate the natural desire on the part of the South Africans to retain their market, but I think from what you have stated in this memorandum you recognise also that the demands of your own market would hardly justify the establishment of extensive manufactures, and I was trying to find out what you knew of the relative costs of production here and in other markets of the Empire where you are likely to find competition. So I pointed out to you that the cost of your work would depend entirely on the cost of raw materials and wages. You think that raw materials are just as cheap as in other parts of the world, and you think your coloured labour is cheap?—Yes.

3597. And you think, very properly, of the iron industry as being a basic industry. You do not know very much about the position of South Africa in respect of iron ore?—No.

3598–9. I have had various papers before me relative to this subject, and one particularly in Natal, but it is so little developed and so little known that I would not care to pronounce upon it. But I can see, nevertheless, that it is not an ore of the highest quality. There are ores, as far as I have made out, of very high quality in different parts of South Africa, but not in Natal. I have read your paper with sympathy, and I would like to see you develop on the lines indicated. But you recognise, and it is our duty to point out to you, that the conditions in many respects are not very favourable, and that the wages for white labour are the highest in the world?—Yes, for the time being, but they will be reduced as time goes on.

3600–1. Of course, as long as there is a demand for labour on the Rand at high wages you are not likely to get industrial work done on a much lower basis?—No.

3602. **(Sir Jan Langerman.)** In connection with the establishment of industries and the power required, could you make use of the Howick Falls?—I may say that for a certain industry, which we had in view, we were thinking of using power from the Falls, but then, again, these Falls are so far from the coast, and the raw materials would have to be carried there, and you know that some of the South African Rivers have an unfortunate habit of drying up now and again.

3603. Supposing you were to establish the industries here in Durban, would the loss in transmission be too great to bring the power down to the coast economically?—I am really not an authority on that subject, but I believe the Corporation of Durban would never allow the current from the Howick Falls to come here and compete with their own power.

3604. They cannot stand in the way of the establishment of valuable industries by their own selfish purposes?—That is really a subject I have not gone in for. **(Mr. Reynolds-Tait.)** We have the power at a very low price now. I do not think we could bring it from the Howick Falls at less than we get it now.

3605. You do not think you could obtain it any cheaper than at present?—**(Mr. Anderson.)** No. I may mention that from a waterfall in Norway, where power is obtained, 35 cubic feet of hydrogen costs about 1½*d.*, and the same 35 cubic feet produced from

the current we have here, at present prices, would cost a little over 2*d.*, so that, taking everything into consideration, it is very cheap.

3606. Therefore, the Falls would not be able to compete successfully against the coal, in view of the drawbacks you mention?—I am afraid not.

3607. You say that coloured labour is dear; what do you mean?—In regard to the Kaffir and the coolie.

3608. Supposing the Kaffir does a certain amount of work, and you were to eliminate him and put the white man in his place, would the Kaffir labour be dearer?—Yes, I think so. But I may also say that it is impossible to expect a white man in South Africa to do the work of the Kaffir to-day. It would be *infra dig.*: it would be beneath him.

3609. I want to know the value of the labour. Say the Kaffir would work for 2*s.*, and the white man would want 10*s.*, would the white man do five times as much work?—Yes, if he applied himself to it.

3610. In this climate?—Yes.

3611. You have wonderful white men in Natal, then.—I think he could do it.

Pietermaritzburg, Friday, 27th March, 1914.

Mr. P. H. Taylor, M.P.C., Mayor of Pietermaritzburg, and Mr. W. J. O'Brien, Councillor, called and examined.

3612. **(Sir Alfred Bateman.)** You have handed in a statement which I understand you desire to make to the Commission. We shall be glad if you will kindly read it and then we will ask you questions?—Before we proceed I should like in the name of the town to extend to the Commission officially a hearty welcome, and to say how pleased we are to have you amongst us. We hope you will have a pleasant time in Pietermaritzburg during your short stay, and that the evidence which you take here may prove useful to you.

3613. I am very much obliged to you for those wishes. I am sure we shall enjoy our visit very much.—I may say that since Pietermaritzburg became a disrated capital an endeavour has been made to encourage industries to establish themselves in this city. Of course, the Council being a changeable body, it is not in a position to lay down any hard and fast offers that might be made to manufacturers, but, as an indication of what the Council were prepared to do a year or two ago, the following offer was made for the establishment of an industry here—I think it was the wattle extract industry. An offer was made to supply water at the rate of 1*s.* 6*d.* per 1,000 gallons with a rebate of 6*d.* per 1,000 gallons on a guaranteed consumption. Electric power was offered at a fixed charge of 3*l.* per annum for the horse-power installed, current at 1½*d.* per unit with an alternate tariff of 3*d.* per unit for the first 25 units of horse-power of maximum demand, 2*d.* per unit for the next 100 units of horse-power of maximum demand, of 1½*d.* per unit for the next 100 units of horse-power of maximum demand, of 1¼*d.* for all current consumed over that amount. If preferred, however, the Council was prepared to supply current at a flat rate of 2*d.* per unit. There is every wish on the part of the Council to induce industries to establish themselves here, and though we are not in a position to make any definite offer as to the price of land I may say that we are always prepared to give any application the most favourable consideration. It is felt that Maritzburg, being the centre, to a very large extent, of the railway system of the Province, is very suitably situated for the purpose of establishing industries. I believe the Chamber of Commerce are going to give an indication of the industries that are already established here and some that are lying fallow. We thought it might be of use to anybody who takes up the question of establishing some of these industries that we have not yet got amongst us to know that the Council is prepared to give an application every reasonable consideration.

3614. Do you own a great deal of land in the city?—Yes, the town lands belonging to the municipality consist of about 27,000 acres, of which close upon 10,000 acres are alienated, and at present about 17,000 acres are unalienated.

3615. And this offer of electric power is a good deal less than the ordinary rate?—Yes, considerably.

3616. We are going to have before us the Chamber of Commerce on this question as well as others, and I am very pleased to have had from you an assurance of that kind. May I ask if any acceptance of that offer has been made to you or to your predecessors?—There have been several applications, but they have not come to anything, as a matter of fact, so far. One or two are under consideration, I think.

3617. Of course, we shall have to examine in detail the Chamber of Commerce, but we are pleased to have heard this from you?—Yes, it is our desire to give the greatest possible inducement to suitable industries to establish themselves in this town.

3618. **(Sir Rider Haggard.)** You said that 10,000 acres of your town lands have been alienated. Is that recently or of old?—It is since 1840.

3619. I suppose the trade of Maritzburg is generally agricultural, is it not?—Yes.

3620. Maritzburg depends for its prosperity upon the prosperity of agriculture in Natal?—Yes, on the prosperity of the farming industry.

3621. **(Mr. Garnett.)** Of the 10,000 acres that have been alienated, how are they being utilised at present?—Some are held as small farms and some have suburban residences built on them and various uses are made of them.

3622. What size of plot is being cut up?—They vary from 1 acre to 20 acres.

3623. On a plot of 20 acres what is the man doing?—Dairying.

3624. What would 20 acres carry?—The people on the town lands of Maritzburg have been in a rather fortunate position in this respect; although they may only own from 1 acre to 20 acres they have had the run of the rest of the town lands and recently the Council, in the last two or three years, has embarked on the wattle-growing scheme, which has had the effect of doing away with a great deal of grazing which these burgesses formerly enjoyed.

3625. Up till now they have had a sort of right to commonage on the town lands?—Yes.

3626. May I ask how long those offers in regard to the reduced water charges and reduced electric current charges have been made?—About two years.

3627. And in addition to those reductions in charges, did you give any other reductions? You must have other rates for the service of the town?—There is the ordinary general rate

3628. You have not made any reduction in regard to the ordinary general rate?—No, we are not in a position to do that.

3629. **(Mr. Sinclair.)** Is not Maritzburg one of the centres of activity of the wattle industry?—Yes, I think it is very well situated for that.

3630. Does an important part of the operations of dealing in wattle bark exist here. Are there firms here which deal largely in wattle bark and in the timber of the wattle?—There are firms dealing in wattle timber, but they are principally agents for Durban firms.

3631. Will they deal with the industry before the Commission? I gather that you are not going to speak about it yourself?—No, I did not come here with that idea. I believe the Chamber of Commerce will speak on the subject.

3632. **(Mr. Tatlow.)** In addition to the advantages that you have, and that you are able to offer to manufacturers in the shape of electric power and water supply, does Maritzburg stand pretty well in as regards coal supplies and the price of coal?—The coal mines are about 160 miles from here.

3633. Is there an abundant supply?—Yes, at about 10*s*. a ton for industrial purposes.

3634. Then it has the advantage also of comparatively cheap coal?—Yes.

3635. **(Mr. Bowring.)** How do you generate your electric power; by steam?—Yes.

3636. You have no water power?—No. I may state that the question of water power has been thought of. We have the Howick Falls at a distance of about 14 miles from the town and it has been discussed, but having already installed steam power we feel that we are not in a position to tackle the water question.

3637. It has been discussed, you say, and it is possible it may come into use later?—I would not like to say that. The difficulty about a scheme of that kind is this, that we cannot depend upon a full supply of water; the river runs very low during the winter season and it would mean conservation of the water at enormous expense.

3638. In regard to your electric plant, is that more than sufficient for your present requirements?—Yes, I think so. Councillor O'Brien can answer that question better than myself. **(Mr. O'Brien.)** I may mention that we have just installed a turbine and we have now sufficient power for all industrial purposes. We are supplying the railway with all the power they want for their workshops.

3639. And you can supply all that is required?—Yes, at any time.

3640. **(Mr. Lorimer.)** On the general question of industries, I should like to know what manufactures you have in your mind at the present time. When you talk of the facilities you have for establishing manufactures here, what have you in mind?—**(Mr. Taylor.)** Well, we think we are very well situated for the establishment of the wattle extract industry for one thing, a fruit canning industry for another. There are quantities of fruit produced round about this city and not far from it, and we think there is an opportunity for the establishment of fruit-canning and jam-making manufactories.

3641. How do you get your electric power now?—From steam.

3642. So that if you thought of taking advantage of the natural facilities for generating power by the waterfall which you have, you would have to reorganise your business on a completely new system?—Yes.

3643. How far would you have to bring the power from the water?—About 14 miles.

3644. Well, there would be very little leakage of the current in that distance. With respect to the industries that you have in your mind, would you have to import skilled labour?—I think we would. If we wanted any further skilled labour it would have to be imported.

3645. So that the position is simply this: You have the facilities for doing certain work, but all the necessary concomitants would have to be provided. You would have to import labour and you would have to create your power. You have your water running to waste, but you would have to establish an electric station and convey the power to Maritzburg or wherever you were going to use it?—But our own electric station at the present time is capable of a further output.

3646. You mean to say you can utilise the steam power you have just now?—Yes.

3647. If you propose to do that what advantage would you have over any other place with all your labour to import. I thought you were basing your representations on the fact that you have an ample water power here which could be used for industrial purposes; but if you have to use electricity generated by steam then you are in the same position as the other places round you in the country, except that you may be a little nearer to the coal than Durban is?—I suppose that is the case.

3648. All your skilled labour has to be found. You think you would have no difficulty in getting skilled labour here. You have, of course, plenty of natives, but are they the people who could be adapted to the conditions of industrial life?—Yes, by training. Of course, they could not do anything of a technical nature.

3649. Of course, we all desire to see the industrial development of the Union progress, but, naturally enough, if these industries are to be developed by outside help, if the English people are to establish factories here they would enquire where the most profitable conditions prevailed, and you would naturally represent the conditions of your own district. Consequently, we must ask these questions in order to satisfy ourselves as to whether you have the special conditions which you claim, and on what ground you put them forward. Now in respect to the industrial development of this Province, the great point is cheap power and cheap labour, at all events labour that would not be excessive as compared with other places. You would be at a disadvantage at first in not having any skilled labour here such as may be found in Durban or Cape Town. If the power which you have available was cheap enough, then, of course, that difficulty would be easily overcome. I suppose you have not the same large number of artisans, for example, as Cape Town or Durban?—No, but I take it those places have only got sufficient for the requirements of the town.

3650. Take mechanics' work, for instance. Have you a plentiful supply of mechanics—fitters and machinists of various kinds?—I should say they would come where the work lies.

3651. You are satisfied there would be no difficulty there?—There would be no more difficulty than in any other part of the Union.

3652. **(Sir Alfred Bateman.)** You think that the town of Maritzburg has many advantages and is in a very favourable position?—**(Mr. O'Brien.)** Yes, and the advantages could be enlarged and extended.

3653. **(Mr. Tatlow.)** Does the Railway Department do work to any extent here?—Yes, a large amount of repairs and renewals and rolling stock and locomotives.

3654. How many skilled men are connected with that work?—At present there are about 300 or 400, and we claim that the conditions under which the white man exists here are much more favourable than they are at the coast, where the climate is very semi-tropical.

3655. I suppose native labour is employed in the works as well as white?—Yes. The native is very adaptable, and in many instances he becomes pretty skilled, and that is a question you will have to face in the future.

3656. Of this 400 you speak of as employed by the Railways here, what proportion would be natives?—None of those are natives, they are all artisans. In addition to those they have a certain number of assistants who are probably natives— a few hundred.

Mr. David Forbes Forsyth, b.a., Chairman, and Mr. Robert Dunlop, Secretary, of the Pietermaritzburg Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Mining," see p. 26 of this vol., and on "Steamship, Post, and Telegraph Communications," see p. 80 of* [Cd. 7706].)

3657. **(Sir Alfred Bateman.)** You have prepared, on behalf of the Chamber of Commerce, a statement on the subject you desire to bring before the Commission. Will you please read it?—**(Mr. Forsyth.)** Yes. We represent the local Chamber of Commerce.

(*The statement was read, and is as follows. A portion of it, relating to iron ore, is printed on p.* 26.)

We represent the local Chamber of Commerce and desire to draw your attention to certain facts respecting this city and the establishment of industries.

Maritzburg is exceptionally favoured for the establishment of many industries, and the following reasons may be given in support of this statement:—

(1) Its geographical position—situated between the coal-fields and the port.
(2) Its healthy climate and surroundings, where an industrial population can live in comfort and in health.
(3) The great facilities it affords for obtaining native labour.
(4) Its excellent water supply, and the advantage of cheap fuel.
(4) Its position as a market centre for a very large farming community.
(6) Its position on the main rail-road to the Transvaal, Orange Free State, and the Northern Districts of the Cape Province, having branch lines to Griqualand East (soon it is hoped to be connected up with Fort Maclear), and to Umvoti County (thereby opening up a very large and important agricultural and wattle-growing district).

The following industries exist at the present time in the city:—

A large brewery; a biscuit factory; a large well-established wagon industry; gate and fence works; boot and legging factory; vinegar, sauce, and essence factory; clothing factory (bespoke); excellent printing establishments; brick-making and tile works; furniture factories, and railway workshops.

We desire to make the following observations, and will be glad to tender any evidence you may require with regard to the following industries.

Wagon-making.—This has been one of the principal local industries, this city being well situated for carrying out such work. It is a well-known fact that workers in wood and artisans employed in connection with iron work can do much more work in a given time in a comparatively cool centre like Maritzburg, than the same man can do in the same time at the coast. The wagon industry has maintained its activity notwithstanding the serious outbreak of East Coast Fever. The manufacturers have adapted themselves to the new conditions, and a different class of vehicle has been made for mules and donkeys in place of the heavier wagons that were worked with oxen. The local manufacturers send large quantities of their wagons as far north as Rhodesia. In our opinion there is scope for the establishment of an agricultural implement factory, which would make certain standard lines of ploughs and harrows which are almost exclusively imported. Such manufactures might be carried on in conjunction with the wagon shops.

Tanning and leather production.—This most important industry is only carried on in Maritzburg on a comparatively small scale. There is no question that materials exist here in unlimited quantities; both hides and bark are very largely exported, and a considerable portion of the shipments undoubtedly return as leather and leather goods, which might have been made locally, and thus saving double freight and intermediaries' expenses.

Woollen factories.—Extraordinary advantages and special facilities for the successful operation of a woollen industry exist here. There are ample supplies of the raw material obtainable. There is sufficient protection against the imported manufactured article, and there is a large market for all that can be made in the immense trade in native blankets. In addition to blankets a large trade could be done in hose, tweeds, and worsted jerseys. These are largely sold among natives.

Rhodesian cotton might be diverted to Natal and used in connection with this industry.

Fruit-canning, jam and preserve-making.—In a Province which has been named the "Garden Colony of South Africa," the fruit-canning and jam industry has not yet been developed, although it is well-known that large quantities of fruit are grown and allowed to rot.

Weights and measures.—This Chamber has passed resolutions from time to time in favour of the decimal system being applied to weights and measures.

Empire trade mark.—This Chamber is also in favour of the adoption of an Empire Trade Mark.

Beet sugar.—It is stated that sugar beet grows very well in this district, but owing to the cane industry on the coast, there is apparently no desire to give much encouragement.

Motor-car bodies.—Among the other industries we should like to see developed here is the manufacture of motor-car bodies, it being widely recognised that the carriage builders of this city, who are gradually being seriously affected, and their trade diminished, through the introduction of motor-cars, might be encouraged by Customs protection to embark upon the business of motor-car bodies.

Fire-clay.—Large bodies of valuable clay suitable for fire bricks and glazed and salt glazed bricks exist near this city. Fire bricks have been made for some years, and successfully competed with the imported article. Unfortunately this industry has closed down owing to lack of capital and technical knowledge.

Malt and hops.—Until recent years the whole of the main ingredients used in the manufacture of beer (malt and hops), have been imported from England. It has been realised for many years that if the very large quantities of barley and hops used in South Africa could be grown in this country, and the barley converted into malt, it would result in a very considerable stimulus to the agricultural industry. Imported seed barley of suitable quality for brewing purposes has been distributed in various parts of the country amongst the farming community at cost price, and the resulting crops purchased. This has necessitated the erection of maltings for the purpose of converting the barley into malt.

The malting industry is still in its infancy, and it is still necessary to import the larger proportion of grain used in brewing. It is believed that the soil in many parts of East Griqualand and the climatic conditions are suitable for the production of a good quality of barley. Considerable quantities of hop plants and seeds, with the aid of the Government Agricultural Department have been distributed amongst farmers, and it is hoped that the experiments in hop-growing which are now being tried by the farmers amongst whom the plants have been distributed, and at the Government Agricultural Experimental Farms in various parts of South Africa, will be successful, and result eventually in the importation of hops into this country being unnecessary.

We have endeavoured to give a brief résumé of the principal facts and features concerning local industries which we considered might be of interest or advantage to your Commission and hope that in due course they may bear some fruit, even if it should only result in giving greater publicity to the potentialities of this part of His Majesty's Dominions.

3658. **(Sir Alfred Bateman.)** You know that the paragraph referring to the subject of protection is entirely outside our reference, and we cannot consider it?—**(Mr. Dunlop.)** Yes.

3659. **(Mr. Sinclair.)** Among other industries that might be established here you mention the woollen

industry and you spoke of supplying native blankets. Where do those blankets come from now?—They are mostly English and Continental.

3660. Imported?—Yes. Some blankets, I believe, are being made down in the Eastern Province on a small scale. **(Mr. Forsyth.)** There was a small factory at Newcastle for making tweeds, but it had to close down. I think that the reason was that the quality of the stuff which they made was too good and did not seem to wear out soon enough, so that is the reason why we have suggested using Rhodesian cotton, which would make a shoddy material.

3661. Those who supply blankets in the meantime supply the quality that the native wants?—Yes.

3662. Can you tell us where the bulk of the present supply comes from; that is to say whether from the Continent or from the Mother Country?—I believe the bulk of the blankets come from the Continent, but it is quite an intricate business. Different parts of South Africa demand a different kind of blanket. The Basuto uses quite a different kind of blanket from the Pondo, and the Pondo quite a different one from the Zulu, and the trade has to cater for all these different wants.

3663. **(Mr. Lorimer.)** You say that a man can do better work in this fairly temperate climate than down at the coast, and if I may judge from my own experience, I quite agree with you at the outset. Now, in respect to these industries that are already established here: has this wagon-making industry anything to do with what we heard at another place in regard to the proposed contract with the Government for the railway wagons, which fell through?—No, it is a different thing.

3664. This factory is devoted to agricultural wagons, I suppose?—Yes.

3665. Does it prosper?—It has prospered in the past, it is a little bit dull at the present time.

3666. Is it the only one in the Province?—No, they make wagons in Durban as well. Every country town practically has a wagon maker's shop.

3667. Then you very naturally urge the desirability of establishing a manufactory for agricultural implements?—Yes.

3668. Now can you tell us what is the value of these implements imported into the country year by year. Have you the figures there?—I have the 1912 figures. In 1912 there was a value of 448,794*l.* imported into the South African Union.

3669. That is for the whole Union?—Yes.

3670. What would your share of that be, roughly. Would it be one-fifth or one-sixth?—I should think about one-fifth or one-sixth.

3671. Is there any duty on these things now?—No.

3672. Are you advocating the imposition of duties in order to establish it?—Yes, in the first instance to establish the industry.

3673. You will understand that we have nothing to do with that. When I was asking about the value of your imports, what was in my mind was this: is your business enough to establish a factory which would probably require, say, half a million of money expended on the plant, buildings, and so on, in order to enable it to turn out its work in the cheapest possible way?—We anticipate an enormous development in the agriculture of South Africa in the near future.

3674. You think of the future as well as of the present?—Yes.

3675. And your contention is that such a place could be built with satisfactory results in Maritzburg equal, at all events, to those in any other part of the Union?—Yes.

3676. The last witness mentioned the possibility of developing electric power from your waterfall?—The trouble, I am afraid, about our electric power from the waterfall is that in the winter time our South African rivers dry up to a very large extent.

3677. It would not be continuous?—I am afraid not.

3678. Would you have sufficient storage to keep you going?—That might be possible, but very expensive. I think we shall have to rely on our coal power entirely.

3679. Now, why is it there has been no attempt to utilise your hides and bark for tanning?—Well, we are a very small population in Natal, and, of course, it requires a considerable amount of money to establish an industry of this description, and investors are very chary of putting their money into Colonial industries.

3680. You just come there to the crucial point. I am sure we should all like to see your city and country develop its industries, but if they are to be developed on a profitable scale there must be a good market, and your population is small. What you want is population so as to increase the demand for industrial products?—Certainly.

3681. Now, in respect to what you said just now. Is there a lack of capital?—Yes.

3682. Do you find people here at all ready to invest money in industries?—No, they would rather invest it on first mortgage.

3683. Well, it would be rather difficult for us, would it not, to say that there was a big field for industrial development in Natal if the Natal people won't put their hands into their pockets and provide money?—I do not think they have it to provide.

3684. **(Sir Rider Haggard.)** Now, in your statement you talk about the jam and fruit industry, and you say there is every prospect of manufacturing preserves and so on; but it is not done on an adequate scale, is it?—No, there is a small industry.

3685. I think that complaint was made forty years ago?—**(Mr. Dunlop.)** Well, of course, I did not know about it then. We have had jam factories here, but they have closed down. I think the quality was inferior, judging as a layman. We make excellent home-made jam, but when it goes to the factory it does not seem to retain its flavour.

3686. You mention the matter of your population. What is the white population now in Natal?—**(Mr. Forsyth.)** About 100,000.

3687. What is the annual increase or the increase per cent.?—Last census there was a slight increase, but last census was taken in 1911, and the previous census was taken in 1904, when, in Natal, we had an inflated population owing to the disturbed conditions which had obtained during the period of the war.

3688. They would not have included soldiers in the census?—Not merely soldiers, but refugees and people who catered for the requirements of the soldiers. A fair comparison would be as between 1911 and 1891.

3689. **(Sir Alfred Bateman.)** They did include the soldiers, I think?—Yes, I think so, but they put a note about it

3690. **(Sir Rider Haggard.)** Surely they did not include the soldiers, that would double the population?—No, we did not have 100,000 soldiers in Natal, only a matter of 20,000.

3691. Would you say there has been an increase of 30,000 during the last twenty years—I should think so.

3692. Is that largely by immigration?—Yes, largely, but also very largely due to natural increase.

3693. Do you know what is your average number of immigrants arriving in Natal?—No, I cannot give you the figure.

3694. You have not got your white birth-rate, have you?—No, but I think it is somewhere about 35 per 1,000.

3695. **(Sir Alfred Bateman.)** As regards the blankets. You told us that most of the blankets came from the Continent?—**(Mr. Dunlop.)** I am not quite clear about that, but I should say, to the best of my knowledge, that the large quantity are Continental.

3696. Have you ever seen Sir Sothern Holland, His Majesty's Trade Commissioner for the Union?—Yes.

3697. Well, it is his business to look into these things where there are imports from the Continent, and I gathered generally from him that the Continental imports were not very large in blankets?—I am not prepared to say. I should say, in my

opinion, a great many cotton blankets are imported. We can see the country of origin in this year's imports.

3698. As regards the population of Maritzburg, you have a larger proportion of whites than in many places, I believe?—Yes.

3699. I see that you have about 15,000 Europeans in Maritzburg out of 31,500?—Yes, that is about half.

3700. That is a large proportion, is it not, for South Africa?—We think it is in comparison with other South African towns.

3701. I suppose you attach importance to that as showing that you are more of a white city?—Yes, and our local industries are endeavouring, as far as possible, to keep the trade in the hands of the white industrialists. **(Mr. Forsyth.)** In regard to the blanket question, I see from the returns published in the Blue Book in connection with blankets and rugs, that the bulk of these come from the United Kingdom. Out of a total import of 375,000*l*., there is 336,000*l*. from the United Kingdom.

3702. **(Mr. Garnett.)** In regard to the blankets that you mentioned as coming from Continental sources, would you be inclined to say that that particular class of blanket is the cheapest blanket that comes here, and such competition as there is is in the commonest kind of blanket?—Well, the native likes a good blanket so far as quality is concerned.

3703. But according to the evidence we have had put before us, it would seem to show that such competition as there is from the Continent is especially in the lowest priced class of blanket?—Yes.

3704. There is an importation from the Continent, but it does not appear to be very large. The evidence we have had is that this competition is in the very poorest of blankets. Are you in a position to say "Yes" or "No" to that?—No. We know there is a very cheap cotton blanket that is made on the Continent.

3705. Is that a manufacture of cotton and wool?—No.

3706. Because you said you thought that cotton from Rhodesia would be suitable for using in this blanket trade?—Yes.

3707. You had in your mind that this cotton could be used in these blankets or used for mixing?—Yes, the wool would make too good a blanket.

3708. And the trade in blankets you wished to establish is not a cotton blanket pure and simple which would compete with the lowest priced blanket, but a mixture of wool and cotton that would come in between the highest and lowest prices?—Yes.

3709. Well now, have you any knowledge as to whether the Rhodesian cotton would be useful for this purpose or not?—No, I have not.

3710. Now, in regard to hops: Have there been any experiments? **(Mr. Dunlop.)** A company is experimenting now. A certain amount of work has been done in connection with malted barley. A malting house was erected at Port Elizabeth, but it proved to be quite insufficient to handle the barley available. Another one was put up at Pretoria, but that has not been kept fully employed for want of sufficient barley.

3711. And does the same answer apply to beet?—There have been no extensive experiments.

3712. What would you say is the general opinion?—Some people have taken more than a general interest in it.

3713. You say that there is a general consensus of opinion that Natal has a suitable climate and soil for the production of beet sugar?—Yes, in this district.

3714. But you have had no experiments?—No, but we have produced the beets.

3715. How many people are employed in the various industries in this city?—I could not give this information off-hand.

3716. **(Sir Alfred Bateman.)** Now, I see in regard to the Empire trade mark, you say it is a matter you are in favour of. May I ask if your Chamber has considered the subject carefully?—Yes, from time to time.

3717. Because I may tell you that practically all the Chambers that have come before the Commission and all the bigger firms are against it, and we have found very little support for it where we have been. I wondered whether you had considered it carefully or whether you simply took the idea as being captivating?—No. Correspondence has taken place with the Empire Trade Mark Association, and it has received the attention of the local Chamber from time to time, and they have been convinced of the utility of such a trade mark, and have passed resolutions to that effect.

3718. **(Mr. Tatlow.)** In regard to the fruit canning industry, which you appear to consider a very promising one, may I ask if there is a sufficient supply of fruit at present available for starting such an industry?—There is not a sufficient supply available immediately, but if such an industry were started there would soon be plenty of fruit to supply all requirements. There are very large resources in the way of orchards in this district, and if people only took a little care, there would be enough fruit for such an industry in a very short time. At the present, large quantities rot on the trees and are wasted.

3719. Is the fruit-growing industry developing at all?—Not much, except in certain districts. In the Umvoti District it has developed considerably. Pears particularly do well. In this district, about 30 or 40 miles away, there are some excellent orchards. Apples do very well and also peaches, and a small canning industry has been started and is already being carried on.

3720. Did you say that large quantities were wasted?—Yes. **(Mr. Forsyth.)** Then, again, we grow very fine pineapples in this district. There is a large supply of what are known as Queen Pine.

TRANSVAAL.

Johannesburg, Friday, 3rd April, 1914.

Mr. Howard Wallace Soutter, Mr. Alfred Falkland Robinson, and Mr. Ernest Chappell, J.P., representing the Johannesburg Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Migration, Land Settlement, and Irrigation," see p.* 46, *on "Posts, Telegraphs, and Steamships," p.* 81, *on "Bills of Lading," p.* 91, *on "Railways, Harbours, and Coal for Bunkering and Shipment," p.* 140, *on "Empire Development," p.* 161 *of* [Cd. 7706]; *and on "Exhibitions," see p.* 124, "*Statistics*," *p.* 130, *and "Legislation," p.* 183, *of this volume.*)

The following statements had previously been submitted to the Commission in a letter from the Chamber dated February 4th, 1914:—

Trade.—Upon the establishment of Union, a separate Ministerial Portfolio of Commerce and Industries was created, and its subsequent abolition aroused the strong protest of the recognised commercial and industrial organisations.

British Empire Trade Mark.—Instead of such a mark as "Made within the Empire" the Chamber would prefer a system whereby the mark used should indicate the actual country or Colony of manufacture.

Misrepresentation as to origin.—Experience goes to show that misrepresentation as to origin of goods is not so prevalent as was once the case. It would, however, be more satisfactory if an International

Agreement could be arrived at, requiring goods to be marked with the name of the country of origin.

System of Trade Commissioners and Correspondents.

The Chamber has no direct information, as to the effect in encouraging British trade, of the appointment of Trade Commissioners for the several Dominions. It is considered that the system could probably be more effective if such Commissioners were in more direct touch with the Chambers of Commerce, and it is observed that, probably with that object, the Secretaries of the Chambers of Commerce in many of the principal towns have been officially appointed as correspondents under the Trade Commissioners. This Chamber is constantly receiving trade enquiries from all parts of the Empire and from foreign countries.

Mr. Soutter read the following additional statements:—

Ministry of Trade and Commerce.—On behalf of the Johannesburg Chamber of Commerce, we should like to supplement paragraph 4* of their letter to the Secretary of the Commission dated 4th February, 1914.

A strong protest was made at the time of the abolition of the Ministerial Portfolio of Commerce and Industries.

We venture to think that the selection by the Government of the gentlemen who respectively filled this office was an unhappy one, inasmuch as neither of them had direct experience or was acquainted with the trade and industry, other than the agricultural industry. The commercial community feel it is of the utmost importance that there should be some Minister who is thoroughly acquainted with commercial and industrial affairs, and to whom the commercial community could refer questions directly affecting their interests. We further consider that such a Minister would be of the greatest assistance in dealing with industrial disputes, and questions which arise between employers and employees. We would point out to the Commission that, amongst others, a Minister of Commerce and Industries would occupy a position equivalent to that of the President of the Board of Trade.

At the present time, the commercial and industrial bodies have to make representation to various Ministers instead of making such representation to what may be called their own Minister. As an instance of this, the resolutions of the Associated Chambers of Commerce, which met in Kimberley last year, had to be referred to at least six or seven Ministers. We would, therefore, urge upon the Commission the desirability of this Portfolio being re-established.

Marks of Origin.—The Chamber referred to this in its letter of the 4th February, to the Secretary of the Commission, and we would seek to emphasise the view of the Chamber that the mark should indicate the actual country or Colony of manufacture, and that, as far as the United Kingdom and the Dominions are concerned, it would not be desirable that they should have a common mark made within the Empire. The Commission will remember that when the mark of origin was first introduced, it formed an immense advertisement for the country of origin, especially in the case of Germany, and we think that each Dominion or country is entitled to whatever value there may be in such an advertisement.

3721. **(Mr. Sinclair.)** You represent that you think that there should be a Minister of Commerce and Industries. Can you tell the Commission whether trade was benefited during the period that there was such a Minister? — **(Mr. Soutter.)** Well, it is very difficult to answer that question, because I think the commercial community throughout South Africa realised that the Ministers who held that portfolio were not in intimate touch with them.

3722. I do not want to go into that?—And the department was never properly organised. I think that would be the correct answer to that question.

3723. You think that such an appointment would work for the benefit of the trade of the whole Union? —Yes, we do; and we also think, in addition to the trade of the Union, the Minister of Commerce—who would hold a somewhat similar position to that of the President of the Board of Trade—would be the Minister to assist in all industrial disputes.

3724. You mean as a mediator?—Yes, and as an investigator and conciliator.

3725. That is the attitude which the Minister who holds that Portfolio takes up in other countries, as you know?—Yes.

3726. On the subject of the system of Trade Commissioners and Correspondents you have a word to say as to the closer touch which you think desirable between the Commissioners and the Chambers of Commerce. Have you ever considered whether it would be desirable that the Trades Commissioner should hold the position of honorary member of the Chambers of Commerce. Would that have the effect, or would it be a convenient means, of bringing about that intimate touch which you desire?—We think it might, but our suggestion would be either that the Commissioner himself, or his Correspondent, at any rate, should be a member of the Chamber of Commerce. We suggest that the Secretary of the Chamber of Commerce might be the Correspondent of the Commissioner. At present the Commissioner in South Africa pays visits periodically to the different parts of the Union to gain information, and he is always welcomed by the commercial people, and all information we can give is afforded him.

3727. And you would be favourable to his occupying a seat on the Committee of the Chamber of Commerce, do I understand?—Personally, I should have no objection. It would probably mean an alteration in the Constitution.

3728. But it would make for the touch which you want?—Yes.

3729. **(Mr. Garnett.)** Referring to the British Empire trade mark. Has any consideration been given to the question of how the British Empire trade mark, which would be common to every production in the Empire, would affect existing trade marks?—I do not think it has, but we regarded that question merely as to whether there should be a universal trade mark for the United Kingdom and the Dominions on goods made within the Empire.

3730. You have not considered the question as to whether a mark which was intended simply as a mark of origin should eventually come to be looked upon as a mark of quality?—No.

3731. I mean applied to good and bad alike. If it were liable to debase the existing trade marks, which have enormous importance, you would not be inclined to favour it?—We have not considered that.

3732. In regard to misrepresentation, we had it in evidence that certain goods of British origin could only be bought without any mark on them at all. It was suggested that to enforce such a regulation as, for instance, that the goods have been made in, let us say, Great Britain, would, according to the testimony of manufacturers, result in that trade being lost, one of the conditions of their trade being that no mark whatsoever should be placed on the goods. Has that point presented itself to you?—No, it has not. But I cannot conceive any difficulty in some distinctive mark.

3733. I only mention this point because one of the largest and most important manufacturers of a certain class of goods in the whole world—perhaps the most important—gave it in evidence in London that to insist on any mark whatsoever indicating origin, quality, or anything else, would seriously and materially interfere with that trade. That question has not been considered by your Chamber?—No.

3734. **(Sir Alfred Bateman.)** In regard to Trades Commissioners and Correspondents, have you seen Sir Sothern Holland's reports that he makes annually?—From Cape Town?

3735. Yes, and also the particulars supplied to the Commercial Committee of the Board of Trade, where they show the important results of the encouragement of British trade from the appointment of British Trades Commissioners?—That is not before us. But we do say that these Trades Commissioners and

* See previous page.

Correspondents in all industrial centres would be an enormous improvement.

3736. Sir Sothern Holland's work has been considered by British manufacturers and others at home to be of the greatest importance?—**(Mr. Chappell.)** Hear, hear.

3737. I suppose you are in favour of British goods being used as much as possible?—**(Mr. Soutter.)** Oh, quite.

3738. I think it was suggested that the Trades Commissioner might be a member of the Chamber of Commerce, but if he was at Cape Town he would not be much here?—I understood in answering that question that there would be a Correspondent here, and also the possibility, perhaps, that the Commissioner himself might reside in Johannesburg instead of in Cape Town.

3739. On that point, do you consider it would be an advantage to British trade if we had either another Commissioner or a Sub-Commisioner up here instead of a Trade Correspondent?—I think it would be better. He would have a higher official standing.

3740. But your Chamber is often consulted from the Mother Country about getting into touch with users of goods?—Yes.

3741. And you see the Trades Correspondent here, I suppose?—On those enquiries?

3742. Yes.—No, the Secretary of the Chamber answers them direct.

(*See also evidence of Mr. H. W. Smyth, pp.* 1–8.)

LIST OF APPENDICES.

(c.) GENERAL TRADE QUESTIONS.

Commercial Travellers' Licences.

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APPENDIX I.

The following Memorandum was submitted by Mr. Alexander Buchanan and Mr. Walter Butcher on behalf of the Durban Chamber of Commerce.

(*For the evidence of these witnesses see p.* 162.)

Commercial Travellers' Licences.

Evidence has been laid before your Commission by English firms, protesting against the alleged exorbitant taxation imposed in the way of licences upon their representatives travelling in South Africa.

It is felt that it is only right that your Commission should hear the other side of the case; and, speaking for the merchants and warehousemen of this and other towns, we would point out that, while we welcome the representatives of manufacturers and would favour a low licence charge for them, we feel very differently towards the representatives of oversea warehousemen and merchants or commission houses who travel the country in competition with us, carry no stocks on this side, employ no staff, and contribute nothing to the general taxation revenue of the country, except the licence they complain about. Local merchants or warehousemen have very large vested interests in the shape of lands, buildings, and stocks of merchandise, which are subject to heavy Government and municipal taxation charges. They provide occupation and a livelihood for a large number of employés and their dependants, and they consider they can fairly ask for legislation that will impose taxation on their oversea competitors through the only channel at present available, with the object of equalising the basis of competition.

From the point of view of the Municipalities and of the Government it must be apparent that it is to their interests to encourage the establishment and development of such businesses which add to the rateable value of the towns and increase their populations by attracting educated men who, with their dependants, are a most desirable class of burgesses, who eventually spread out into other parts of the country and play a large part in its general development and progress.

The existence and welfare of such hives of industry must always be of great importance to a country like this, which teems with natives and which, more than anything else, requires to increase its white population.

The following is a quotation from the Report of the Chamber for the year 1912 on the subject of Commercial Travellers' Licences:—

"The conditions under which licences are at present issued to commercial travellers representing houses not domiciled in the Union are as follows:—

"Cape Colony: 50*l.* per annum for the first house represented, 5*l.* for each additional house; maximum, 100*l.*

"Transvaal: 10*l.* per annum.

"Natal: 10*l.* per annum.

"Orange Free State: 5*l.* every three months.

"An undomiciled travellers' licence would, therefore, cost for the whole Union, minimum 80*l.*, estimating that he visited the Orange Free State two seasons during the year, and maximum 140*l.*

"According to reports which have appeared in some trade papers, an impression has got abroad that the Durban Chamber of Commerce is desirous of seeing an increase in the scale of licences for commercial travellers representing houses domiciled without the Union.

"The proposals made by the Chamber in 1911 and communicated to Government are as follows:—

"Every travellers or agent or firm of travellers or agents trading in *bonâ fide* partnership (excluding an association of travellers or agents), acting as representatives of one or more persons or firms not domiciled within the Union, must obtain a licence for the purpose of carrying on their calling. The charge for such licence to be:—

"For the Union of South Africa: 100*l.* per calendar year, 50*l.* per half calendar year.

"For the Cape Province only or for the Transvaal Province only: 50*l.* per calendar year, 25*l.* per half calendar year.

"For the Orange Free State Province only or for the Natal Province only: 25*l.* per calendar year, 12*l.* 10*s.* per half calendar year.

"The opinion has been expressed by members of the Chamber that a distinction should be made between travellers representing oversea manufacturers and travellers representing oversea commission houses and warehousemen. It is pointed out that

travellers of the second class are in direct competition with merchants domiciled in South Africa, who employ large staffs and pay rates and taxes and who are a direct benefit to the country. The competition in question seriously affects the welfare of a large section of the community who directly or indirectly depend upon the employment provided by the merchant houses established in South Africa."

APPENDIX II.

LETTER FROM MR. WALTER BUTCHER AS TO COMMERCIAL TRAVELLERS' LICENCES.

(*For Mr. Butcher's Evidence, see p.* 164.)

P.O. Box 1004,
Durban, Natal,
23rd March, 1914.

DEAR SIR,

WILL you kindly allow me to tender the enclosed letter as an appendix to the evidence given this morning on the subject of Commercial Travellers' licences? As you are aware, the matter was not discussed, and I did not have the expected opportunity of referring to it and tendering it as an addition to my evidence.

Yours faithfully,
WALTER E. BUTCHER.

The Secretary,
Dominions Commission,
Durban.

P.S.—The letter is from the head of a local wholesale warehouse firm, a former Chairman of our Chamber of Commerce.

P.O. Box 936,
Durban,
March 20th, 1914.

DEAR MR. BUTCHER,

WITH reference to the evidence that you propose to give before the Dominions Royal Commission, in regard to home travellers, and our discussion of Wednesday afternoon, I suggest that, while the matter you have so far arranged is quite good, it might be extended, perhaps, on the following lines:—

That the travellers of home warehousemen do a great deal of harm to the trade of this country must be admitted, when we take into consideration the fact that in the wholesale soft-goods trade alone in Durban it is calculated that there are at least 500 European employees. Taking their salaries at an average of 12*l.* 10*s.* per month, we have a salary list of roughly 75,000*l.* a year, and there should be added a similar number, I think, of native and coloured employees, whose wages and keep, provided by their employers, probably amounts to an average, say, of 2*l.* 10*s.* per month, or 15,000*l.* a year, so that the wholesale soft-goods trade in Durban alone circulates an amount approaching 100,000*l.* per annum in salaries and wages alone, and this leaving out of consideration the spendings of the principals. It can be fairly assumed, considering the number of married men that are employed as Departmental Managers and in other positions of responsibility by the wholesale soft-goods trade, that each white employee on an average supports at least one other individual, who is directly dependent upon him, taking juniors together with seniors; so that it will be seen that in Durban alone the wholesale soft-goods trade gives direct support to at least one thousand white persons. The importance of this trade will be realised when the number mentioned is compared with the total white population of Durban of 33,500, and what applies to the wholesale soft-goods trade will no doubt equally apply to other important trades in Natal, and will certainly apply in like ratio to other large distributing centres within the Union, such as Johannesburg, Cape Town, Port Elizabeth, and East London. Indeed, it may be fairly assumed that the distributing trade of Durban does not average one-tenth that of the whole Union. It will thus be seen that a very large section of white people throughout the Union is dependent upon the distributing trade of the country. This trade is seriously hampered and interfered with by the inroads that have been made into it by travellers who represent oversea warehouses. There would not be so much cause for complaint if these travellers confined their attentions to large businesses, that are financially strong enough to go past the wholesale houses of the Union, but, unfortunately, they go outside their legitimate sphere, and call upon all sorts of storekeepers in the different native territories, such as Zululand, Pondoland, and Basutoland, besides catering for the trade of small town storekeepers, as also of numerous wayside stores. These storekeepers are more often than not in a very small way of business, and are not financially strong enough to import goods direct, and when they place direct indents it frequently happens that they order far more goods than are necessary for their immediate requirements, as the home travellers cannot regularly call upon them every two or three months, with the result that they become over-stocked, and in some instances, notably along the reefs, goods are thrown on the market almost at any cost, in order to turn them into cash, so as to provide funds to meet the home drafts as they become due. It follows that the wholesale firms in the country suffer, as they are kept waiting while the drafts belonging to home houses are paid; so that there are three bad effects as a consequence of oversea wholesale warehousemen doing business with small storekeepers:—

(1) The storekeeper frequently over-stocks himself and financial embarrassment results;
(2) In order to temporarily tide over his financial embarrassment, he frequently realises goods at far below their proper value, and so not only adds to his ultimate financial embarrassment, but makes it difficult for his competitors to do business legitimately alongside him.
(3) The wholesale firms in the country suffer, not alone by being kept waiting for payment of their goods while oversea drafts are paid, but also by a crop of bad debts that frequently follow the over-trading that oversea traders are the immediate cause of.

Economically, it will surely be admitted, that it is desirable that a good class of white citizens should be found employment for within the Union, and the class of citizens employed by the wholesale drapery trade is quite as high as, if not higher than, those who are employed by may other trades within the Union. The employees of these wholesale houses possess, as a rule, more than average intelligence. They are well-educated, and take an active interest in the economic and political problems of the country; moreover, they take their part freely and fully in the defence of the country, and during the last native rebellion in Zululand the wholesale houses of Natal contributed in no small degree (in accordance with their numbers) to the forces of the Colony that suppresed the rebellion. This in itself is a very important matter in a young country such as this, and bearing in mind the disparity between the European and native populations, it is essential that everything should be done to increase the white population of this country, if only from the point of view of defence, although there are other reasons equally cogent why this should be done. One of these reasons is that the more trade that is kept in the country it naturally follows that the prosperity of the Union will be correspondingly enhanced.

I have spoken of the number of employees, white and coloured, in the wholesale soft-goods trade in Durban, but how about those other employees who are perhaps not directly dependent upon the trade, but are certainly indirectly dependent upon it to some extent; for instance, employment is found for a number of individuals who make packing cases for the local wholesale trade, employment is also provided for printers, landlords obtain suitable tenants for their dwelling-houses, while the municipality benefits by the rates that are levied on the wholesale establishments, as well as on the dwelling-houses of their employees, and the Post Office, railway, and other Government services naturally benefit from the use that is made of them; whereas, in the case of goods that are sent out direct from home to storekeepers in a small town, or on the veldt, little benefit can accrue to the Government, the municipalities, and the various industries of the country.

It is estimated that if the home travellers confined their operations to their legitimate sphere, the wholesale soft-goods trade in this country would be wellnigh doubled, and employment would, consequently, be found, if not for double, at all events for a much larger proportion of employees for whom work is now found by that trade, with the result that the Government and public services would reap considerable benefit, while the municipalities would likewise benefit in a corresponding degree, and room would be found for a much larger population within the Union of a well-contented and fairly prosperous body of individuals.

To assist in accomplishing this object it has been suggested that a licence should be required to be taken out by oversea travellers, at a cost of £100 per annum, the said licence to give them the right to pursue their vocation in all four Provinces of the Union, and it has furthermore, been suggested that an importing licence should be required to be taken out by merchants and storekeepers who import goods direct from oversea into the Union, of a minimum amount of £50 per annum, but the latter licence does not, of course, come within the scope of the Dominions Royal Commission.

It should be mentioned in passing that in connection with the suggestion that oversea travellers should take out a licence at a cost of £100 a year, no great hardship would be imposed, in view of the fact that licences for travellers representing foreign firms are required to be taken out by the various Provinces at the present time as follows:—

Cape Province...	£50
Transvaal	£10
Natal	£10
Orange Free State	£20
Total	£90

So that in the aggregate the cost would be only £10 more per annum; but, on the other hand, oversea travellers would be required to take out a licence for the whole of the Union, instead of for isolated Provinces as at present.

It may be said that if travellers of home warehousemen did not compete against travellers of warehousemen who are domiciled within the Union, country storekeepers might have to pay an increase in the local prices of goods. Against this, it should be pointed out that although the printing trade enjoys a protective duty of 25 per cent., competition in that trade locally is remarkably keen, and on numerous occasions I have found, after making enquiries at home, and in some instances having the work actually done at home, that on the whole we can get our printing work done much cheaper within the Union. The object of the protective duty is to keep the work within the Union, and in effect it has been found that it does not materially put up the price of printing, if at all.

You also pointed out to me yesterday that, notwithstanding the duty on candles, the price of candles that are now made within the Union is cheaper now than ever it was when supplies were drawn entirely from oversea. The wholesale houses do not ask for any special protective duty against oversea houses, but they do ask that substantial consideration be shown to them in view of the very large stocks they carry in this country (the great bulk of which are drawn from Great Britain) involving the employment of a vast amount of capital, which provides for the maintenance of a large number of employees, both white and coloured, for whom work is found.

Yours sincerely,
GEO. E. HANDS.

Walter Butcher, Esq.,
Durban.

I am sending a copy of this letter to Mr. W. G. Brown.

APPENDIX III.

LETTER FROM THE FEDERATED COMMERCIAL TRAVELLERS' ASSOCIATIONS OF SOUTH AFRICA.

Secretary's Office:
P.O. Box 828, Cape Town,
April 8, 1914.

Inter-Provincial Commercial Travellers' Licence.

GENTLEMEN,

As requested by members of the Dominions Royal Commission I submit a few points for their consideration upon the detrimental effect that inter-Provincial Commercial Travellers' Licences have on certain kinds of British manufactured goods.

We are all aware that the farming community, in the past, has been practically self-supporting, or at all events their wants were of the most limited description, and consisted, principally, of the rougher description of wearing apparel, which naturally induced the large coastal wholesale houses to adjust their stocks accordingly.

Some time ago a great advance was made in the coastal towns in the character and qualities of all kinds of wearing-apparel, a demand that the wholesale merchants, particularly of Cape Town, were not slow to take full advantage of, with the result that they are to-day carrying stocks of drapery, such as costumes, coats, millinery, dress goods, and all kinds of finer under-clothing, &c., of a character and value they would never have attempted to have stocked a few years ago.

This class of business has never yet been extended to the outlying districts, not because the demand is not there, but that the inter-Provincial Travellers' Licences exist, with the result that in many of those districts the inhabitants are content to dress in the simple way their forbears did, buying a few yards of print for a dress or a few yards of calico for underclothing.

It comes well within my own personal experience that this class of business has been entirely developed and extended by the commercial traveller throughout the Western Province, but is practically neglected in the inland Provinces, because of those inter-Provincial Licences.

As proof that a demand can be created, and a profitable one, I would instance the fact that most of the larger retail drapery firms of Cape Town have one or two men canvassing (retail) from house to house this particular class of goods, and all of them do very well.

We, as a body, are conscious that if those licences were abolished and free trading established throughout the Union, and even throughout the Empire, a great impetus would be given to all classes of goods, and particularly to the class of drapery and wearing-apparel I have stated. One of the results that would be sure to follow would be free competition amongst the merchants; and nothing develops trade like competition.

We have made more than one effort to ascertain the attitude of the Union Government on this subject, but so far with indifferent success. Therefore, the members of the Federated Commercial Travellers' Associations of South Africa feel that this is a subject worthy of your consideration, and they trust you will assist in opening up a free market to all trades throughout the Union and for ever abolish the anomaly of a Province of a unified country issuing licences to citizens who are the accredited representatives of established South African merchants, and styling them as representatives of a foreign firm.

I am, &c.,
JOHN MACKENZIE,
President of the Federated
Commercial Travellers' Associations of South Africa.

The Dominions Royal Commission,
Hugnenot Buildings,
Victoria Street,
Cape Town.

VII.—LEGISLATION.

CAPE OF GOOD HOPE.

Cape Town, Monday, 2nd March, 1914.

Mr. Advocate Louis Edmund Benjamin, K.C., LL.B., called and examined.

(*For the evidence of this witness on "Bills of Lading," see p. 87 of* [Cd. 7706].)

The witness submitted the following memorandum:—

Uniformity of the commercial law is essential to the solidarity of the inter-State trade of the Empire.

The sources from which the trade flows would be stimulated thereby. Mercantile classes in all parts would engage more freely in domestic trade if assured that their transactions were regulated by the same principles as they are acquainted with and accustomed to locally.

At present the various systems are more or less foreign to each other and give rise to mistrust.

At the same time unification of the laws would have the effect of tending to remove local anomalies and to broaden out the law, producing one uniform system from various systems, the ideal of comparative jurisprudence.

The time is quite ripe for unification of certain branches of the law, especially the commercial, English law having exercised a profound modifying effect upon the laws of the Colonies.

It is very desirable that there should be some central authority to proceed with codification, the codes to be circulated throughout the Empire or to be submitted to some representative body for approval before submission for legislative authority, with a view to securing by mutual agreement uniformity of legislation.

At the present time, without any conjoint action, portions of the English law have been adopted in the Colonies, but local peculiarities have been retained, *e.g.*, the Bills of Exchange Act, 1882, has been adopted in South Africa with the exception of the provisions relating to days of grace and the distinction between inland and foreign Bills; the existence of such differences is very undesirable, and probably would not occur under a system such as is suggested.

The elaboration of a code of commercial law common to England and South Africa is quite feasible, as can be shown by consideration of the chief branches of that law.

The essential features of the law of contract in South Africa are substantially the same as those of the law of England, save that there are fewer requirements of form and the question is an open one whether the doctrine of consideration has or has not been engrafted upon the law; but these are matters which would afford little obstruction to the adoption of an Act similar to the Indian Contract Act.

The law of sale of goods in the Union of South Africa might also be expressed in the terms of the Sale of Goods Act, 1893, 56 & 57 Vict. c. 71, except in respect of the time when ownership passes under a contract of sale, in regard to which the Roman-Dutch law has adopted the principle of the civil law; it is possible to assume that, if the Sale of Goods Act had, prior to enactment, been subject to inter-State consideration, this principle of the civil law might have been adopted.

The English law and the Roman-Dutch law as applied in South Africa are, in general, consistent on the subject of agency; they differ, however, in respect of the rights and liabilities of the undisclosed principal and the agent acting for him; but in framing a uniform code of law the conflicting doctrines of the two systems might with advantage be subjected to reconsideration. The South African law of suretyship differs from that of England in respect of the fact that, under the former, writing is not essential to the constitution of the contract, and in so far as the surety enjoys the benefits of excussion (discussion) and division: opinion cannot differ as to the desirability of insisting upon writing as a formal requirement, and in this respect South African law would be well amended; as to the benefits of excussion and division these may be, and are usually, renounced in practice, and if the law was made uniform on these points with that of England the change would be welcomed as dispensing with an unnecessary formality.

A large proportion of the time of the courts is to-day occupied with the affairs of the Joint Stock Companies, company law being an evolution of comparatively recent date. South Africa has had to make new law on the subject, and has perceived the advantage of adopting and taking over the company law to be found in the English statutes; company law is not, however, uniform throughout the Union; some of the Provinces have adopted the earlier statutes, some the later ones; this want of uniformity would probably not have occurred if legislation had taken place as suggested above.

The Law of Partnership well illustrates the advantage to be gained from legislation on a basis of comparative law; the principle of the limited liability of one or more of the partners has always existed in Roman-Dutch law; it has been adopted in English law only as recently as the year 1907; it is safe to assume that if a code of law on the subject had been framed for the Empire this principle would have found a place in it.

What has been said above with regard to company law applies *mutatis mutandis* to the law relating to trade marks and the cognate subjects.

The Cape Colony (now the Cape Province) adopted in the year 1879 the English law relating to fire, life, and marine insurance, stoppage in transition, bills of lading, and on all matters relating to marine and shipping law on which the Supreme Court of the Colony exercised concurrent jurisdiction with the now extinct Vice-Admiralty Court: in respect of such maritime and Admiralty matters it was felt to be absurd that the law to be administered should depend upon the particular court in which proceedings might be instituted, English law in the Vice-Admiralty Court and Roman-Dutch in the court of purely local jurisdiction; hence the introduction of English law and the supersession of the earlier law in all those matters on which there were concurrent jurisdictions.

The Law of Carriage by land is very similar in both countries. The law relating to banking and the Stock Exchange may be said to have been adopted in South Africa from English authority.

With regard to bankruptcy, any general law would have to depend to a large extent upon the local law for its application to such matters as the property to vest in the trustee and the priority of creditors, these matters being closely connected in South Africa with the system of public registration, a system which has been carried to great perfection here, and which it seems practically impossible to introduce at so late a date into the law of England; but although this is so, it is highly desirable that there should be some general law of bankruptcy, under which there would be a sole administration of concurrent and co-ordinated administrations of an insolvent debtor's estate throughout the Empire, with general effect in respect of his discharge from his liabilities.

Cape Town, 2 March 1914.] Mr. Advocate Louis Edmund Benjamin, K.C., LL.B. [*Legislation.*

3743. **(Chairman.)** The Commission are greatly indebted to you for the preparation of the paper which you have sent us on the subject of the uniformity of commercial law throughout the Empire. What steps do you propose should be taken to bring about this unification?—I think there should be some central council entrusted with the preparation of general laws dealing with specific subjects. You would have to proceed step by step.

3744. You suggest calling together a series of *ad hoc* commissions?—I would rather prefer a standing commission, I think, on which commission the legal systems of the various portions of the Empire should be represented. It would, perhaps, be somewhat difficult to entrust a commission consisting of representatives of only one system of law with the preparation of a code of laws that would apply to the Empire at large.

3745. When this commission had done its work the codified law would have to be passed by the representative Legislatures of each of the Dominions and the Mother Country?—Yes.

3746. They could only prepare a draft for submission to the various Governments and Legislatures?—Yes.

3747. Do you think that on matters of principle or detail there would be great difficulty in arriving at a satisfactory result?—On some points I think there would not be any serious difficulty, whereas on others it would be otherwise, because some of the differences in commercial law are rooted very deeply in principle: some of the laws would have to be approached in a spirit of concession. I might refer, say, to the difference between the South African law or Roman-Dutch law and the English law of Sales. While under the English law the ownership of property, for instance, passes at once as soon as the contract is completed, under the Roman-Dutch law it only passes on actual delivery. In the English law it seems to me that the principle is founded on deep lying custom, and there might be some difficulty perhaps in assimilating the two systems of law in this respect. I do not think that those who practice Roman-Dutch law would likely advise a renunciation of the principle. I should say there may be some difficulty in cutting away the principle of the English law, which goes so deep. But that seems to me to be only a matter of time, and I fancy that if the question were considered, some compromise might be arrived at between the two systems.

3748. I wish to be quite clear as to the machinery which you suggest. You say a commission composed of the representatives of the Mother Country and the Dominions?—Yes, especially those Dominions whose system of law are fundamentally different from the English system, *e.g.*, Canada and South Africa. In the Australian Colonies you have British law, and perhaps it would not be quite so necessary to have those represented on the commission as it would be in the case of, say, Canada, where the law is founded on the French system, that is Lower Canada. Upper Canada has British law.

3749. What would you say regarding the inconvenience of the present condition of affairs?—The inconvenience is such that it leads to the greatest uncertainty. Merchants in one part of the Empire do not know the principles of law that apply to particular transactions in other parts of the Empire, and this uncertainty leads to the greatest doubt and mistrust. The systems of law in one portion of the Empire are looked upon as foreign in another portion.

3750. Appeals from here go to the Privy Council?—Yes.

3750A. They decide cases on the particular local law governing the facts?—Yes.

3751. They as a tribunal have to apply all these different laws in succession?—Yes. They may have to apply one day Spanish law, another day Roman-Dutch law, and another day French law founded on the Code Napoléon, and at another time they may have to apply Indian law.

3752. Has any proposal ever gone home from South Africa on this subject?—I do not think any proposal has gone home from here.

3753. Has this matter been under discussion here in the Assembly?—No. Up to now we have from time to time taken over portions of the law of the Mother Country. Sometimes we have taken them over *en bloc*, at other times we have taken them over subject to certain local modifications. The greatest portion of the shipping law we have taken over *en bloc*. On the other hand, in the case of such a law as that governing Bills of Exchange, we have taken it over subject to certain modifications. For instance, here we do not recognise what are known as days of grace, and we draw no distinction between inland and foreign bills.

3754. **(Mr. Sinclair.)** You know, Mr. Benjamin, that there has been a general disposition on the part of the Australasian Colonies, at any rate, to get as close as they can on certain subjects to the English law. In other words, to follow English legislation on certain subjects. You know also that a good many of these questions have been brought up at the Imperial Conferences that have been held in the Mother Country?—Yes.

3755. But as I gather from your evidence, you think that the time has come when there should be a more acute movement to bring the laws into accord as far as it is possible to bring them?—Oh, I think so. I think there is every desire on the part of South Africa.

3756. And that, while the existing legislation of the Colonies has been brought up on certain questions fairly close to that of the Mother Country, the time has come for an active body to be set up that would go into this question and try to assimilate the laws as far as it is possible to do so. That is broadly the view which you take?—Yes.

3757. As regards patent law, for instance. I do not know what your legislation is here, but in some Colonies, as you know, the legislation of the Mother Country has been closely followed, following up the discussions that have taken place at Imperial Conferences. I would like to get your opinion on one or two heads of legislation. At the outset it would seem that local conditions and local policies may be so essentially different that it would not be possible to assimilate the governing laws. One saw, for instance, in the papers either to-day or on Saturday that there is a movement in the Mother Country to introduce an Act that is intended to be the basis of a universal Act on the question of naturalisation?—Yes.

3758. The difficulties that suggest themselves to such a general enactment are apparent, and I would like you to give the Commission your views on that question broadly as living in a country where there are both black and white citizens?—That is a question I have not specially considered, but it has always struck one as an anomalous condition that a person who is a citizen of one portion of the Empire is not necessarily a citizen of every other.

3759. That is so, but at the same time it is apparent, is it not, that that might involve conflict in policy between countries which take up a particular attitude on the question of colour? — That is undoubtedly so.

3760. That is one of the difficulties that seems to be suggested by this question. Now on the subject of suretyship. That is one of the cases, I think, in which you point out there is a difference between your local legislation and the law of the Mother Country. You favour, do you not, the insistence of their being in writing?—Yes.

3761. In that respect you support the legislation of the mother country? — Yes; there is a singular absence in our laws of the formal requirements of writing, and it is highly desirable, I think, that we should follow English law.

3762. Is the surety here entitled to step into possession of the principle as regards securities?—Yes. He is entitled to what is called cession of action.

3763. **(Sir Rider Haggard.)** I understand you want to consolidate certain commercial laws?—Yes.

3764. As a matter of practical business, how would you set to work to do it?—I would take a branch of the law at a time. I would not attempt to consolidate the whole of the commercial laws at once.

3765. You would do it piecemeal?—Yes.

3766. Would not the same machinery do the whole thing?—Yes, I think so, but I think the draft laws

would have to be prepared and would have to be circulated through the various States, and they would have to be subsequently submitted to the consideration of the Legislatures: I think it would be too big an undertaking for this Commission or body which sits to prepare a whole code of laws at once. Take, for instance, an Act like the English Bills of Exchange Act and your English Bills of Sale Act, which took a considerable time to prepare and to pass the Legislature. It would be more desirable to do the thing piecemeal.

3767. Then you suggest that you should get Acts passed by all the Legislatures of the Empire?—I think that would be essential.

3768. And finally by the Imperial Parliament?—Perhaps it would be desirable that they should be passed concurrently as far as possible.

3769. You do not see any difficulties in getting this done?—Of course, there are difficulties to concurrent action, but it does not seem to me that the difficulties would be insuperable.

3770. You think the case is so cogent and so urgent and the reasons for consolidation are so strong that you would be prepared to face those difficulties and submit to the various Legislatures of the British Empire a codified law? I think so.

3771. It does not strike you as beyond the range of practical possibility?—I think, of course, that there are great difficulties, but I do not think that it is absolutely impossible.

3772. You are bearing in mind, I suppose, the congested state of the British Parliament at the present time?—Yes, but, notwithstanding that, such Acts as the Bills of Exchange Act and other non-contentious matters have been passed through the Legislature.

3773. But at any rate you think that is what should be done, and you think it could be done?—I think it could be done and should be done, although it may occupy a very long time, probably more than a generation, to produce a satisfactory codification of the whole commercial law.

3774. **(Mr. Lorimer.)** Is it the prerogative of the Union Parliament to make commercial laws for the whole of the Union?—Yes.

3775. Then I find from your memorandum here that you say that the Company Law is not uniform throughout South Africa, but each Province has its own. Did the Union take over those laws and allow them to continue?—Yes. The laws of the Union have not been consolidated. The greater portion are uniform, but there are local statutory differences. I have instanced the Company Law of the Transvaal, which is not the same as the Company Law of the Cape Province.

3776. Of course, what you say is that the Company Law is not uniform. Some Provinces have earlier statutes and others have later ones, and you say that is of no essential importance?—No, not so far as general codification is concerned. What I intended to point out is this, that if there were some system of uniform legislation in the Empire for the preparation of a general code such as I have suggested the necessary consequence in South Africa would be that the laws would become uniform.

3777. I follow that, but as you have differences apparently in the different Provinces, is it conceivable that the Union Parliament might pass a commercial law that would conflict with some Provincial law at the present moment?—The only reasons for the difference of the local law such as I have referred to are these. That up to 1910 instead of having one uniform Legislature for the whole Union there were four different Legislatures at work. In the Transvaal the company laws were enacted by the local Legislature, and they adopted the latest English law, whereas our law in the Cape Province goes back to 1892, and then it was drawn up on the earlier English Acts. The adoption of the earlier or later Company Law was not a matter of principle, but merely due to the accident of time when that particular Legislature considered the matter. It is only a difference in time, but certainly if there were a uniform system of legislation for the Empire there would be encouragement for the local legislation to become, as far as possible, uniform.

3778. Would you kindly explain what is the system of public registration which you say has been carried to great perfection here?—I refer to the registration in connection with the ownership of land. The titles to property here and the encumbrances on property are registered in a central office, whereas in England there is no such system of central registration, but only a voluntary one, which I do not think has worked very satisfactorily. In this country the title of land can be ascertained with absolute certainty by an enquiry which may extend over an hour perhaps, but in England an enquiry as to the title of land is a matter that may extend over years owing to the great number of interests that have grown up in connection with the tenure of land and the fact that there is no system of central registration of title. Now the title to property which would pass on bankruptcy to a trustee, as far as immovable or real property is concerned, might be ascertained at once by an enquiry at the office of the Registrar. In England all sorts of equitable conditions have to be considered which have not to be considered here; so that if you had some general system of bankruptcy legislation the consequence would be this, that you might have property here which would not vest in a trustee in bankruptcy which, if it were held by a similar title in England, would vest. This is the distinction I wish to point out. You might have a title acquired in England by a bankrupt by depositing his title deeds, but in this country no deposit on title deeds will give any such right; there must be actual registration. Therefore a merchant in England who is dealing with a merchant in South Africa might think that he had obtained good title to a particular piece of land by reason of the fact that he had the title deeds deposited, but that would not be the case; to that extent I do not think you could frame a system of bankruptcy law that would work uniformly throughout the Empire; the local law would have to be considered.

3779. In the first sentence of your memorandum you say: If there were some codification of the mercantile law the merchant classes in all parts of the Empire would engage more freely in domestic trade. You mean the domestic trade of the Empire?—Yes.

3780. It would be valuable, but it could only be prepared, as you say, by some central authority authorised by each of the Parliaments concerned. Can you say that South Africa would be willing to engage in such a preparation as a code of mercantile law?—I think so, because they have shown themselves quite ready, at all events, to adopt the codification that has already been prepared in many cases in England. Take the case of the Bills of Exchange, we have taken over that Act almost in its entirety.

3781. So far as the codification of the whole of the laws of the Empire are concerned that is probably a long way off, but you think that a codification of the mercantile law is practicable and could be effected in reasonable time?—Yes, I think so. I would not like to limit myself to the quantity of time required for the purpose. It would probably be a matter that would extend over a generation, but it is advisable that it should be commenced.

3782. **(Sir Alfred Bateman.)** I take it you know all about the system which has obtained in Great Britain of taking part in International Conferences on certain subjects, and by that means gradually bringing the various countries together in matters such as patents, copyrights, trade marks, and so on?—Yes.

3783. We have had conventions and agreements on the matter of copyright law?—Yes.

3784. We have then got more and more countries to come in and so got nearer together?—Yes.

3785. And we have got the copyright law now to run for fifty years after the author's death?—Yes.

3786. Do you think that South Africa would be likely to come into these conventions?—Yes. So far as copyright and trade mark laws are concerned we have practically taken over the law of England. We have not taken over the latest law, but I see no reason why we should not. The only reason, I suppose, is that we have not had time to legislate, but we certainly adopted the earlier law. Our last Trade

Mark Act is founded on the one of 1888, and the Act you refer to, I think, is the one of 1908.

3787. And we have had the Convention of Washington since then, when some more changes were made?—Yes.

3788. You think, on the whole, that the South African Government would be likely to come into this arrangement?—Yes. Trade marks and patents are matters so essentially of modern evolution that we are largely dependent on the law of England on these subjects.

3789. You have not got a great neighbour by your side, such as Canada has in the United States, drawing them towards that side?—No.

3790. Suppose you had your Commissions, and after some years they came to an arrangement and this draft was sent round to all the Legislatures; this draft would be a convention, would it not. What I mean is this:—If the Commission has agreed to anything, that agreement has to be signed and you have to ratify it, and no one country can alter the convention by itself?—I do not look upon it as a convention.

3791. You look upon it as *ad referendum*?—Yes.

3792. Then all the work would have to be done again after the drafts had been received back?—Yes. I rather look upon it in that way, and it would be perfectly competent for any particular Legislature, if it pleased, to reject the law submitted or to modify it, but if they rejected or modified it they would, of course, be subject to all the disadvantages that would arise because they had not a uniform law with the rest of the Empire. You do not think of making this draft into the nature of a convention?—No, that seems to be fraught with so many practical difficulties.

3793. **(Chairman.)** If it is adopted subject to modifications you are not much better off than you are now?—No, that must be left to the sense and wisdom of the respective Legislatures. That is what happened in connection with the bills of exchange. We took over the English Act, but we did not adopt the principle of days of grace, for instance, and distinction between inland and foreign bills. But then Great Britain has also been represented at conventions that took place on the Continent in connection with the drawing up of a uniform system of bills of exchange, and Continental countries desired Great Britain to come into uniformity with them in the matter of days of grace and the distinction between inland and foreign bills which are unknown on the Continent, but Great Britain has not yet fallen into line; the probability is, nevertheless, that it will do so in time. We are more in agreement with Continental practice in that respect.

Cape Town, Tuesday, 3rd March, 1914.

Mr. John William Jagger, M.L.A., Wholesale Merchant and President of the Cape Town Chamber of Commerce, called and examined.

(*For evidence of this witness on "Exhibitions," "Statistics," and "General Trade Questions," see pp.* 124, 127, *and* 145 *of this volume; and on "Land Settlement and Irrigation," "Steamship, Post, and Telegraphic Communications," "Harbours, and Coal for Bunkering," "Empire Development," and on "Fruit," see pp.* 6, 60, 102, 160, *and* 317, *of* [Cd. 7706].)

3794. **(Chairman.)** In regard to patent rights, have you anything special to say?—In regard to that, we are in this position: we have been pressing the Government for a considerable time to bring forward a Consolidating Act; we have a different law as regards patents for every Province. Before we thought of doing anything further we should want our own local laws to be consolidated.

3795. And similarly, I presume, with commercial law?—Oh, yes. At present we have different insolvency laws in each Province, and that has been found to be excessively unsatisfactory.

3796. What progress is being made towards consolidation?—It is very slow

NATAL.

Durban, Wednesday, 25th March, 1914.

Mr. H. G. Mackeurtan, of Messrs. Shepstone and Wylie, Associates and Solicitors, called and examined.

3797. **(Sir Alfred Bateman.)** We have received your *précis* on Commercial Law, but I am sorry to say that several of the Members have not been able to see it. It would, therefore, be quite useless for the Commission, particularly those Members who are legal and who have been unable to peruse the statement, to have any examination of you on this subject. What we propose to do, therefore, is this: if you like, we will put it in but without examining you orally. I gather, however, from the paper that your point is this: that it is no good South Africa talking about coming into uniformity in regard to legislation on commercial law, because she has not put her own house in order?—Yes, and, secondly, we have a system of law which is different in many respects from English law.

3798. Yes. You have Roman-Dutch law, for instance?—Yes. So there is really nothing on which to examine me. I just put my statement in for what it is worth.

The following is the Memorandum submitted by the witness:—

Report.

I regret that owing to pressure I am unable to put in as full a written statement as I should have liked.

I understand I am desired to give evidence on the question of the advisability and feasibility or otherwise of the uniformity of commercial law throughout the British dominions, but, before coming to that, I notice there are several subjects in the list handed me which are questions of particular application of this general principle, viz., Arbitration awards, Empire trade-mark, naturalization, patent laws and trade-marks. I hope to deal with these later on.

Broadly speaking, there can, in my opinion, not be the slightest doubt of the advisability of uniform commercial law throughout the dominions, but in Natal we are faced with two practical difficulties. The first of these is the existence throughout South

Africa of Roman Dutch Law as opposed to English Law in the dominions, with the exception of British Guiana and Ceylon, and the second is that there is not even uniformity of commercial law so far throughout South Africa, and until the laws of the four Provinces are assimilated, either by means of statutes or by means of interpretation of the highest court in the land, there are grave practical difficulties in the way of the Union becoming a party to any scheme for the unification of commercial law.

There is a third difficulty also; but as that is a difficulty which is present whenever uniformity is sought it has no special or particular application to this Province. I refer to the fact that, in order to secure uniformity, you must, I think, have a code, and there are certain objections to every code, the main one of which is its inelasticity, and the fact that there must arise, in the application of every code, what one calls the difficulty of competing analogies, that is to say, the arising of different sets of facts which are on the border line between two provisions of the code, or are not covered by the code at all.

Dealing with the first objection, it may be of interest if I show some of the essential differences which exist between English and the Roman Dutch Law. I think commercial law includes the following:—

(1) Contracts.
(2) Purchase and sale.
(3) Bailments.
(4) Letting and hiring.
(5) Patents and trade-marks.
(6) Insurance—Fire, life, and marine.
(7) Bills of lading and charter parties.
(8) Mortgage and pledge.
(9) Transfer of land.
(10) Suretyship.
(11) Arbitrations and awards.
(12) Negotiable instruments.
(13) Partnership and agency.
(14) Company law.
(15) Bankruptcy.

So far as (1) Patents and trade-marks: (2) Insurance; (3) Bills of lading and charter parties: (4) Arbitrations and awards: (5) Negotiable instruments: (6) Company law, and (7) Bankruptcy are concerned, I see no great difficulty in providing a uniform code for the dominions, so far as South Africa is concerned, for the following reasons:—

The law of patents, negotiable instruments, bankruptcy, arbitrations, and companies is regulated in South Africa by statutes which are founded upon the English Patent Acts, the Bills of Exchange Act, the English Arbitration Law, and the English Company and Bankruptcy Law, though in any system of uniform codification there would have to be taken into account the judicial decisions of the various courts in South Africa on the statutes. This may, of course, sound arrogant, but it is common cause that the decisions of some of the South African judges are worthy of a place in the judicial annals of the Empire, and this has been recognised by the promised publication very shortly of an Empire Digest, under the supervision of Lord Halsbury, as a complement to the invaluable text book supervised by him known as the Laws of England.

With regard to company law, I wish to say that there is considerable laxity in Natal as regards the carrying on of a business with limited liability, due to the fact that the Natal Companies Act dates from the sixties, and I think the country would welcome a far more stringent company law based on the provisions of the Companies Consolidation Act of Great Britain, 1908. A step in this direction has been made by the Transvaal in their recent Company Act, but as far as I am aware, no steps in that direction have been taken by the other three Provinces.

As far as insurance, bills of lading, and charter parties are concerned, the reason why there is no difficulty in their case is that these subjects receive little or no attention at the hands of the Roman Dutch Text Book writers, and the courts of South Africa almost invariably follow the English decisions where they have not a statute, as in the Cape, incorporating the English law. In addition to this, there is also the fact that the Merchant Shipping Act, in many of it provisions, applies throughout the dominions.

As regards the remaining subjects, I see great difficulties, and if I instance some striking differences between the English and the Roman Dutch Law, for which I am indebted mainly to Professor Morice's Handbook called "English and Roman Dutch Law," I may perhaps make my point clearer.

Mortgages.—In England a mortgage is a transfer of the legal ownership, leaving the equitable ownership in the mortgagor, whose only right is an equity of redemption. Under Roman Dutch Law a mortgage does not affect the ownership, but is merely a charge against the property registered in the Deeds Office of each Province. In Roman Dutch Law there is no place for the equitable mortgage of English Law, which may be created by various means, as, for instance, the pledge of title deeds. In South Africa a mortgagee cannot sell the property without the decree of a competent court. In Roman Dutch Law there is no place for the "tacking" of mortgages which exist in English Law, or for the consolidation of securities. Under Roman Dutch Law there is no power of sale as exists under English Law. In English Law there is no place for the general mortgage as opposed to the special mortgage which exists under Roman Dutch Law. The rights of the mortgagee on bankruptcy vary very, very materially in South Africa from the rights in Great Britain.

Contracts.—The South African Courts have not yet fully adopted the doctrine of consideration, upon which so much reliance is placed in England, nor is there under Roman Dutch Law any peculiar sanctity in a deed such as there is in the English Law.

A very strong difference exists in joint contracts. Under English Law a joint contractor is liable for the whole, and the death of two joint debtors renders the survivor solely liable to the creditor.

This is not the case under Roman Dutch Law.

In South African Law cessions of contracts or "chooses in action" are fully recognised, whereas in England the only assignment of these rights that is allowed is an absolute one. There are material differences as regards the right to charge interest. Gifts under Roman Dutch Law require acceptance, and if above the value of 500*l.*, require registration in the Deeds Office, and, even so, the gift is revocable under certain circumstances. This is not the law in England

Purchase and Sale.—The purchase and sale of real property is materially different in the two countries owing to the fact of the existence here of registration of title as a universal law, and I may say that the system here prevailing is, to my mind, infinitely superior to the system which prevails in England. I say nothing as to the possibility of such a system in England, where the question of registration would appear, however suitable, to have before it the united opposition of the legal profession, and the almost insuperable difficulty of classifying the titles recognised under the English Law. However, knowing, as I do, that it is possible in certain districts of England to register title, and that this is said to be a failure, I wish to point out that under that system it is possible to register three kinds of title: an absolute, qualified, or possesser's, and that, therefore, the system cannot be said to have had a fair trial.

As regards the sale of movables, it might be possible to introduce here a code in the form already in force in England under the Sale of Goods Act, but the differences between English and Roman Dutch Law of sale are marked, both as regards the passing of ownership and the passing of risks—as regards the right to recover stolen property, as regards the question of executory and other agreements, as regards the old Roman redhibitory and *quantim minoris* action which still exist in South Africa concurrently with the *actio empti*, and so on.

Partnership.—With regard to partnership, there are material differences between Roman Dutch Law and English Law as codified in the Partnership Act of 1890. Under our law partners are jointly and severally liable for the whole debt, which they are not under English Law.

Partnerships *en commandite* and anonymous partnerships are unknown to English Law, and are fairly frequent in South Africa.

Letting and hiring.—The distinction between the law of letting and hiring in England and South Africa is most marked. English Law is particularly kind to the landlord, and South Africa is particularly kind

to the tenant. For instance, the following duties devolve upon the landlord under Roman Dutch Law and not under English Law: not to disturb the lessee, and to warrant him against interferences; to maintain the thing let in a proper state so that the lessee can make proper use of it; to compensate the lessee for damage caused to him by essential defects. Under English Law the landlord has a right to distress. Under South African Law he has what is known as hypothec, which he cannot exercise himself without the intervention of the court. With regard to leases of immovable property, leases for ten years or over in South Africa are regarded as immovable property, and are not binding against the landlord's successors in title unless registered against the title in the deeds office. This does not exist in England.

In England mortgagors may grant leases which are valid against the mortgagees under the Conveyancing Act, 1881. No mortgagor in South Africa can grant a lease to the prejudice of the existing mortgage, and if the mortgage is foreclosed the property may be sold discharged from the lease.

Under English Law the lessor and lessee may assign their interests unless there is a stipulation to the contrary. This is not the case in South Africa. The lessee, for instance, of what is known as a rural tenement cannot sublet or assign without the consent of his landlord.

There are no important differences between the English and Roman Dutch Law on the subject of contracts of letting and hiring of services.

Suretyship.—No woman could become a surety for her husband or any other person in accordance with Roman laws, and there is necessary to the validity of a guarantee by a woman either the renunciation of the benefits conferred upon her by the Roman Dutch Law, or the observance of statutory formalities provided as in Natal. Under English Law the giving of time to a debtor releases the surety. This is not so under Roman Dutch Law. Under Roman Dutch Law the surety can claim against the creditor certain benefits provided by the Roman Law, viz., the right to compel the creditor to excuse the debtor first, and the right of division of liability where there is more than one surety. These benefits are not known to English Law.

With regard to bailments, I do not think there is any very material difference, except that the English Law has become involved by statutes.

I now come to the distinctions between the Roman Dutch Law as interpreted in the various Provinces in support of my statement that I think we should put our house in order before we can possibly hope to become a factor in an Empire code.

(1) The Transvaal Courts have held that consideration is not necessary for a contract, that *causa* or a deliberate motive is sufficient.

The Cape Courts have held the reverse, and so far no one has been bold enough to test the question in the Appeal Court; the Appeal Court being composed sometimes of a majority of old Transvaal, and sometimes a majority of old Cape, judges, none of whom is likely to depart from the considered views delivered by him, makes the question one of some nicety, and perhaps acts as a deterrent.

(2) In Natal the rights of mortgagees on insolvency have been very, very far extended, the decisions purporting to be based upon the Natal Statute law; but these decisions, in in my humble view, are not necessarily warranted by the statute, and are in direct contradiction with the decisions of the other Provinces. In Natal the tendency has been in the past to follow the English Law more closely than the Roman Dutch, and in one case already one of the old Natal decisions on the question of landlord and tenant has been overruled by the Appeal Court as being inconsistent with Roman Dutch Law.

If I had time I could multiply instances where the different courts of the various Provinces have given contradictory decisions, though I must say that the main difficulty presents itself as regards the statutes of the various Provinces. Until the Statute laws of South Africa on such subjects as bankruptcy, patents, partnership, contracts in writing, and numerous other points of essential importance to commercial men are consolidated and unified, South Africa will not, for the purposes of a uniform commercial law, present an undivided exterior, and I think our right road is rather, as I have said, to put our own house in order with a view to being important participants in an undoubtedly desirable course, namely, a uniform code of commercial law throughout the Empire, which, whatever may be its inherent defects, will be a great advance towards the ideal legal state.

TRANSVAAL.

Johannesburg, Friday, 3rd April, 1914.

Mr. Howard Wallace Soutter, Mr. Alfred Falkland Robinson, and Mr. Ernest Chappell, J.P., representing the Johannesburg Chamber of Commerce, called and examined.

(*For evidence of these witnesses on "Migration, Land Settlement, and Irrigation," see p.* 46, *on "Posts, Telegraphs, and Steamships," p.* 81, *on "Bills of Lading," p.* 91, *on "Railways, Harbours, and Coal for Bunkering and Shipment," p.* 140, *on "Empire Development," p.* 161, *of* [Cd. 7706]; *and on "Exhibitions," see p.* 124, *on "Statistics," p.* 130, *and on "General Trade Questions," p.* 173, *of this volume.*)

In a letter dated February 4th, 1914, *the Chamber had submitted the following notes:—*

Legislation.

(*a*) *Double Income Tax and Death Duties.* — The Chamber requested General Botha to raise this question at the last Imperial Conference. The levying of double taxation is considered to be most inequitable, and to act as an impediment to the investment of capital in Colonial enterprises.

(*b*) *Patent Rights and Trade Marks.*—It is considered as a matter of importance that there should be uniformity of legislation in Great Britain and the dominions providing for the due recognition and effective protection of patent rights and trade marks.

(*c*) *Codification of Commercial Laws.* — Although in many respects trade conditions in the several dominions differ from those in Great Britain, yet there are many directions in which uniformity or agreement should be effected. In this connection might be considered (besides the subjects in (*a*) and (*b*)), weights and measures, company law, insolvency, certificates of origin and preference, foods and drugs adulteration, arbitration laws, duties on catalogues, licences of commercial travellers, trade combines and trusts, registration of businesses, &c.

Mr. Soutter read the following additional memorandum:—

Patent Rights and Trade Marks.—The Commissioners will be aware that a bill has been drafted dealing with patent rights and trade marks for the Union of South Africa. This bill has been drafted and follows very closely the procedure of the English Act. There are many obstacles in the way of uniformity of legislation in Great Britain and the dominions, especially in regard to working provisions. It will at once be seen that the working provisions of the English Act are inapplicable to local conditions. In the Colonies there are few facilities for constrnc-

tion, and the Colonies are not so advanced in arts and manufactures as in the Old Country, and it would be impossible for an inventor, say of an engine, to have it constructed in this country. But we would venture to point out certain anomalies which exist, and which might be amended. Under the United Kingdom Act of 1907 an invention need only be unknown in the British Isles to enable it to be patented, and an invention which has not been used during the fifty years preceding the application for patent can be protected.

In the Transvaal at the present time, the invention must be universally new, and the application must be by the actual inventor.

In the Cape and Natal Provinces the invention need not be universally new, and the first importer of the invention can protect it, and the applicant need not be the actual inventor. We would submit to the Commission that there should at least be unanimity in these matters, and would suggest that the provisions of the English Act in these directions should be taken as the model.

Another matter of outstanding importance is the inadequacy of official examination of Colonial patents. In the Transvaal there is in practice no examination. Formerly applications for patents were referred by the Transvaal officials to scientists and experts at Cape Town, but this has been discontinued, and all that is necessary now is that the invention be properly explained so that the claims can be easily followed. In the United Kingdom there is a staff of highly-trained technical experts, and the examination of an application for a patent is subject to an exhaustive enquiry for similar inventions during fifty years previous. In Germany and America the official examination is even stricter than in the United Kingdom, and we believe that in Germany investigations are made dating from the earliest records in 1615. It is not suggested that in a new country like South Africa it would be possible to have official experts who could carry out this work. This will be seen at once by comparison with the number of applications for patents. The average number in the Transvaal a year is 600, and for the first quarter of this year, 1914, there has been a decrease in applications of 20 compared with the same period of last year. In the United Kingdom and in Germany the rough average of applications is 30,000 and in America from 50,000 to 60,000 per annum, so that the expense in South Africa of highly trained experts would not be justified.

There are difficulties in the way of South Africa accepting the registration of a patent in the United Kingdom as *prima facie* evidence of novelty as the patent in the United Kingdom need only be unknown in the British Isles, but we would suggest that it might be possible, where a patent has been granted in the United Kingdom, for the Colonial Registrar to grant provisional protection on the plans, specifications, &c., accepted by the office in the United Kingdom, leaving it open for objections to be raised in the Union.

3799. **(Mr. Sinclair.)** As regards patents and trade marks, you have projected legislation on that subject bringing you as closely as you can get to English statute law?—**(Mr. Chappell.)** Yes.

3800. I am not quite clear whether you favour the system that at present exists in the Transvaal when applications are made for patents. All that is necessary now, I understand, is that the invention shall be properly explained, so that claims can be easily followed. Are you satisfied with that?—I am not certain as to the technical requirements of the law.

3801. You have here some useful criticisms and suggestions of improvements that might be made, but I do not gather clearly from the statement what particular attitude it is that you desire to present?—**(Mr. Soutter.)** Well, sir, in the first place there is no doubt that technical examination is of the utmost importance, but, as we point out, that involves highly-paid experts and scientists, and it is quite out of the question as far as we are concerned.

3802. You do not suggest that they should be appointed?—No; we cannot suggest that.

3803. Have you any suggestion to make that would be applicable to the existing conditions, or are you satisfied with what exists in the Transvaal to-day?—Not to-day, but we are satisfied with the Bill that is before Parliament and which we have gone through very carefully, and which, we think, will meet the case.

3804. That is the outcome of the representations of your Chamber?—Yes.

3805. You say in regard to patents that it might be possible, where a patent has been granted in the United Kingdom, that the Colonial Register should grant provisional protection on the plans and specifications accepted by the office in the United Kingdom, leaving it open to objections to be raised in the Union. Is that protection not given to-day under the existing Convention? Does the protection when it is applied for in, say, the mother country not relate back?—I think not, sir, in this country. I believe application has to be made to the Registrar here, and the point we made there was that, where a patent has been granted in the United Kingdom, the detailed specifications and plans should be accepted by the Registrar here, at any rate as *prima facie* evidence of *bona fides*, and that every opportunity, however, should be given to opponents to the patents to object. There seems, of course, to be this difficulty, which I have thought of since, that in the United Kingdom their records are kept in a certain way and have to be printed in a certain way, and whether the papers which would be filed in the Colonial Office are filed merely as copies or not I am rather in doubt. I believe there is considered by patent agents to be some difficulty in filing the documents in the form that they are registered in England.

3806. Where there is an efficient staff, as there is in England, and investigations are made by experts on such a question, we will say, as subject-matter, would you favour that being accepted so far as your Union is concerned?—I do not think we could, sir, for this reason—that a novelty, say, in the improvement of an engine might be patented in England when there may have been somebody here working out the idea at the same time, and it may, in fact, be in operation in South Africa, so that, therefore, it would not be patentable here.

3807. The attitude seems to create somewhat of a dilemma, does it not? You want to bring the Patent Laws of your Union as close as you can into conformity with those of the Mother Country, and you want freedom to investigate and decide for yourselves, seemingly, in many directions?—I think that is inevitable.

3808. **(Sir Alfred Bateman.)** You recognise that we in England not only have our own Patent Law, but that law is to some extent based on the Conventions which we have entered into with civilised countries in different parts of the world as regards important points in patents and trade marks under the Madrid Convention, so that we hope that you will gradually, as far as you can, come into line with the legislation of the Mother Country and eventually join those Conventions?—Well, sir, the tendency of the Bill, I understand, which is being reconsidered by the Law Department, is to get into uniformity with the English Act, except in the working conditions. We never could have those.

3809. Of course, in England, the patent is a lucrative source of Government revenue—there is a nice little profit attached to it, even, with the expense of searches; you could not have searches here—there is not the business?—Quite so; it is 600 applications against 30,000.

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